

Marine Corps Gazette

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SEPTEMBER 1960
FORTY CENTS

SAN DIEGO



MajGen V. M. Krulak, CG, MCRD, San Diego



Parade grounds lie beyond portals of mile-long arcade. Spanish motif predominates.

Cover painting by Cpl T. L. Kronen, Sr.



Headquarters, CommElec School.

Though another base bears his name, it was Col Joseph H. Pendleton who first conceived the idea of MCRD, San Diego. He turned the first spadeful of earth on a 32-acre tideland plot 16 March 1919. Since then the base has grown to 482 acres. More than a quarter of a million recruits have passed through its Spanish gates enroute to Fleet Marine Forces.



Recruit quarters adjoin mammoth parade grounds.



Headquarters, MCRD, San Diego.



Headquarters, Recruit Training Command.

Marine Corps 1960

The Marine Corps Association Newsletter

An unofficial digest
of news of interest
to our members

SNCO Symposium

New Policies Told

August was an eventful month for Corps SNCOs. CMC signed an order dropping "acting" titles, set 1 July 1963 as deadline for complete conversion to rank structure adopted 1 Jan 1959. Among those affected were about 4,000 master sergeants, 6,500 gunnery sergeants.

All of these and more may be affected by a new promotion policy outlined by G-1 SgtMaj Asa Huskey at 5th Annual SNCO Symposium at Camp Pendleton, 15-19 August. What SgtMaj Huskey said in a nutshell is that "experience will be rewarded."

This means, in effect, that many average Marines with lots of time in grade will get the best shot at promotions.

Here's how it works as accounted at Symposium. Selection boards will be told the average time in grade for each occupational field. Example: In OF "A" there are 300 gunnery sergeants (E-6) eligible for promotion. Their average TIG is 7.5 years. Ninety percent of those selected must be from among those with at least this much time in grade. Ten percent of selections may be from among more junior GySgts/SSgts whose records are considered particularly outstanding.

This is for promotion to gunnery sergeant (E-7). Percentages for promotion to staff sergeant are 75/25.

This FY's first SNCO selection board is slated to convene this month (around 19 Sept). It will consider all MSgts (E-7), GySgts (E-7) with two years in grade on 30 Sep 60, for promotion to 1st Sgt/MSgt.

It will consider all MSgts (E-8), all 1stSgts with two years TIG for promotion to SgtMaj/MGySgt.

Excluded: 4 MSgts (E-7), 10 1stSgts/MSgts who have less time in service than required by law.

The board is getting this advice from CMC: Select generally from among those with *above average time in service*. "Selections below average TIS should be made only on the basis that the man is so outstanding that it would be against the best interests of the Marine Corps not to select him."

SNCO Hump

There are few short-timers (TIS) in upper paygrades. On 30 Apr 60 only one sergeant major had less than 14 years service. Biggest number (114) had 19 years service; 221 had more than 20 years service.

Other grades:	1stSgt/MSgt (E-8)	MSgt/GySgt (E-7)	GySgt/SSgt (E-6)
Less than 10 yrs.	10	37	838
Between 10-20	1494	5589	8070
More than 20	359	637	144
Average TIS	17.5 years	16.5 years	13.2 years

As for time in grade, 369 SgtsMaj/MGySgts had less than three years; 151 had four years, most TIG of any in this group.

1stSgt/MSgt (E-8) — 781 had less than one year TIG; 1,077 had more than one year but less than five years.

MSgts/GySgts (E-7) — Here's the hump — Marines with most time in grade. Slightly over 1,000 had at least two years TIG but less than three. About 1,825 had more than three years TIG but less than nine. 1,796 of the Corps' 6,273 MSgts/GySgts (E-7), or nearly 30 per cent, had nine or

(Continued on page MCA-2)

Stripes Galore

Planned promotions for SNCOs this fiscal year will generally run higher than a year ago. Biggest jump is in number of MSgts (E-8) and GySgts (E-7) who will be promoted. These figures were released at 5th Annual SNCO Symposium:

Sergeant Major—63
Master Gunnery Sergeant—150
1st Sergeant—250
Master Sergeant (E-8)—750
Gunnery Sergeant (E-7)—2,400
Staff Sergeant (E-6)—3,900
Sergeant (E-5)—5,000

Squeezed Out

Third Annual Unit Combat Marksmanship Competition, slated 6-9 Sept at Quantico, has been cancelled. It fell victim to squeeze on TAD funds. There will be a shootout over a combat course; Divisions will conduct their own contest, use same rules, range conditions, situations. Squads from 1stMarBrig will compete with 3dMarDiv.

Prize for 1st place squads: individual letters of recognition from the Commandant, meritorious promotions, trophies for parent battalions.

MCA Trophy will remain with last year's winners, 1/7, again go into circulation when Corps-wide competition is resumed next year.

Division competitions will be closely monitored by G-3, results evaluated, sent around the Corps to assist unit training. (See *Combat Course*, GAZETTE: Aug '60.)

This annual competition was interrupted once before, in 1958, due to Lebanon commitments.

Movie Circuit

First how-to-do-it training film on saluting since WWII has been sent to the field. Twenty-minute, black and white film (last one was technicolor) tells why, when and how of saluting. Added attraction of this pre-1960 film: how to get least interference from swagger sticks when rendering the hand salute.

Troop Tests? See Special report pp MCA 4,5

New Policies, Continued

more years in grade. Biggest percentage of these had 18 years TIS. Smallest percentage had 28 years TIS.

Under new promotion policies TIG counts most for GySgts/SSgts (E-6). On 30Apr60 there were 9,052. Of these, 2,868 had been in grade eight or more years; 2,093 had been in grade four to seven years; 4,091 had been holding their present rank less than four years. Roughly, then, average TIG for this group is about four years.

Of special note: Symposium delegates were told that the last SSgt (E-6) selection board failed to use all vacancies in all fields on the basis that there were not enough sufficiently qualified personnel to promote.

Twilight Zone

Transferred to FMCR in July: 7 SgtMajs, 12 1stSgts, 91 MSgts (E-7), 31 GySgts (E-6), 4 SSgts (E-5). From now through 1963 the pace picks up. *Here's a population breakdown by rank for top three pay grades:

Rank	Years Service	Total Number
SgtMaj/MGySgt	17	51
	18	90
	19	114
1stSgt/MSgt	17	336
	18	339
	19	302
MSgt/GySgt	17	1017
	18	915
	19	640

Twenty or more years service:

SgtMaj/MGySgt—221 1stSgt/MSgt—359 MSgt/GySgt—647

*As of 30 Apr 60.

G-1 planners expect a good percentage of current three-year crop will reenlist beyond 20 years. The rest will seek greener pastures.

A look at both sides of the coin:

Southern California pastures look greenest to Marines in the twilight zone. Forty percent of those asking twilight transfers want San Diego or Orange County. Most are disappointed. Reason: to avoid turning CampPen and El Toro into old soldiers' homes. Here's CMC's policy on twilight transfers:

Eligible—Officers and enlisted who have completed 17½ years service.

- Valid military requirement must exist at station requested.
- Must serve minimum of one year at new duty station prior to transferring to FMCR.
- Station requested must be more than 100 miles from current duty station.
- No twilight transfers to recruiting duty ("B" billet), NROTC or I&I billets will be granted.

SgtsMaj/MGySgts, 1stSgts/MSgts with obligated service must complete same before going FMCR but are not denied a twilight cruise because of it.

Shipping Over?

MCO 1133.17 has this dope on reenlistment or extension of service past 20 years:

MSgts (E-7) and below need CMC approval. Requests to stay must be submitted 3-6 months prior to end of enlistment. Same action is required for subsequent enlistments.

Approval is not automatic. Some who ask don't get it. G-1 figures show that 13.9 percent of those asking to stay beyond 20 years (since 1956) have been turned down. Some get shorter enlistments than they asked for.

Last January 4, the Commandant said this: "... with the small Corps that we have I am firmly convinced that we must keep only the worthwhile individuals."

Bucket Brigade

They've found a new use for buckets at MCRD, San Diego. Worn off-the-head, sand-filled galvanized buckets are helping give recruits high PULHES ratings. They're used for weight lifting.

Sand is added in easy stages, up to 50 pounds, lifted by recruits in three basic positions.

- Rowing—Marine holds bucket in each hand, arms outstretched; at shoulder level moves buckets from front to side.

- Pushups—Same as standard pushup only with sand bucket resting between shoulder blades.

- Concentration Curl—Marine holds bucket in one hand, raises and lowers it using elbow as fulcrum.

Bucket drill is paying off on the rifle range. Scores hung up by recruit shooters showed a 38.7 percent gain off-hand, 38.6 percent gain sitting and kneeling.

Bombs Away

The Navy has sent along a \$4 million contract to Douglas Aircraft for production of a new multiple bomb rack adapter which promises to give A4D Skyhawks six times more bomb power. (See "A4D Multiple Carriage" GAZETTE Special Report August '60).

Bomb cluster racks got a rigorous going over during tests at Patuxent River, Md. Over 150 GP bombs were dropped from every angle. Prime feature: System needs no change to existing ejector racks on board carriers.

Inventory

Marines, Regulars and active duty Reserves, make up seven percent of total Armed Forces strength, 20 percent of Navy Department. Strength figures for each service at the end of FYs '59 and '60:

	30 June '60	30 June '59
Total DoD	2,477,801	2,504,310
Marine Corps	170,641	175,571
Navy	617,622	626,340
Air Force	816,460	840,435
Army	873,078	861,964

Word Cutting

YOU DO NOT REPEAT NOT HAVE TO WRITE UR MSG LIKE THIS PAREN OR READ IT PAREN CMM IF IT GOES BY COMMERCIAL LINES X In fact, you're directed to use normal punctuation, as in a letter. This is part of a drive to cut costs by cutting words, using cheaper ways such as night letter. Ref: ALCOM/30, which adds "DEGRADATION CLARITY NOT INTENDED."

New Life For AmTracs

LVTP-5A1. What is it?

G-4 planners have in mind to start repairing, overhauling, modernizing some 350 deadlined LVTs. Most of these have been in mothballs at Barstow and Albany since 1956-57. The plan: give each a 5th echelon treatment, install about 100 modernization kits, wash and polish, return it to stock as a replacement item.

The Marine Corps has a big investment in LVTs. Each tracked amphibian cost new in the neighborhood of \$120,000. How many are on hand, in depots and field is classified. How many each AmTracBn rates is not. It's 109, plus 48 in each of three cadre companies.

Planners hope to rebuild at the rate of 100 per year.

Refurbishing will take the most money. Borg-Warner built the LVTs, is also designing the kits to keep the amtracs up-to-date. Work will be done by Marines and civilian technicians at Barstow and Albany. Marines will also modernize LVTs now in the field, those short of R&E stage. Working out of Barstow and Albany, they'll go in teams to Divisions.

A few new features to be installed:

- New, improved dome lights
- Better suspension components
- Infra-red gear for night operations
- Carbon monoxide reduction kits
- More waterproofing
- Fiberglass antennae for protection from saltwater
- Single piece final drive/drop gear assembly

Later plans call for arming LVTs with the new M-73 machine gun as weapons become available.

Stylized, vitalized, Simonized, the amtrac gets a new name: LVTP5-A1.

Floating Power

More floating power added to Seventh Fleet: BLT 2/(5)3 embarked early August aboard APA *Lenawee*, LPD *Thomaston*. Move came in response to CINCPAC directive to maintain a special landing force afloat in Southeast Asia Area. Force is designated Operation SPEARHEAD.

Landing Force elements for SPEARHEAD will be rotated from 3dMarDiv every two or three months.

Guidance For Selection Boards

Big news in new promotion policies is the big percentage of old-timers who will be getting more consideration. Along with this is the guide selection boards now have to help them decide who is best fitted for promotion. Personnel planners drafted the guide, routed it through staff sections to CMC. He approved it. Briefly, it groups standard criteria into three categories:

Group One

Indicators

Requisite service	Meets established TIG and TIS.
Achievement	Performance of duty based on fitness reports, awards, ie. development of new ideas, off-duty education.
Leadership	Handling enlisted Marines tactically and routinely
Experience	Combat record, varied assignments

Group Two

Growth Potential	Estimated ability to perform in next higher rank
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Group Three

General Military Proficiency	Qualified shooter, swimmer
Physical Condition	PULHES, SRB photo
Special Qualifications	Language skills, community projects.



Power Pack

A silent power supply for front line radar sets is in the making. General Electric is working on the project, hopes to send a test unit to MCEB for evaluation by the end of this year. Power pack uses fuel cells, produces 200 watts of 24 volt current for 14 hours. It weighs a scant 30 pounds, can be carried easily by one Marine (see cut). It is designed to accompany Marines wherever they go, operate on sandy beaches, in the tropics, withstand heat and cold.

FMF Potomac

Here's how the special "standby" 2/8 at Quantico sets up.

- Commander: ExO of Schools Demonstration Troops, which is furnishing two infantry companies, H&S Co for the new BLT.
- Basic School is coming in with one rifle company, three naval aviators.
- HqBn will provide cadre medical platoon, one doctor, 20 corpsmen.
- SerBn will provide MT section.
- A fourth rifle company will come from MB, 8th & Eye.

1 Sept was effective date for forming this second of six planned BLTs that will be ready by end of FY '61. First one: 3/7, at CampPen, on 15 July, as previously reported by the GAZETTE. Others:

One more for 1stMarDiv, one more for 2dMarDiv, (2/2, on 1 Sep '60; CO: LtCol F. F. Eubanks) one for 3dMarDiv, one for 1stMarBrig.

Night Refueling

Targets for attack pilots are making night refueling operations easier at Cherry Point. A bull's eye of tiny Krypton-85 lamps on tail section of refueler aircraft guides pilot to target. Radioactive Krypton glows in the dark like a luminous wristwatch. Now, more 2dMAW units are getting the device.

Troop Test: What It Means

This year the Fleet Marine Force gets a lot to say about future T/Os and T/Es. Scheduled Troop Tests will include a searching look at every organization from fire team to Marine Expeditionary Force. There are new ideas to go with such new weapons as the M14 rifle, M60 MG, Howtar, and Redeye. More new ideas are wanted.

Here's the background:

- Marines will be prepared to use atomic weapons; they won't rely on them. More emphasis goes to conventional war and to immediate combat readiness.

- It's now clear that for 1962-68 helicopters and LPH will be limited; so will new weapons. A mix of old and new weapons is a must.

- First priority for procurement, R&D will go to "must have" items. Those "nice-to-have" will be pruned. Improved new weapons may be passed up by the Marine Corps, if the improvements are just minor.

Here's where you come in:

To implement this new approach there is no new revised T/O. Instead, field units will get sets of possible organization.

Example: There'll be sample T/Os to place Redeye under company, BLT, or RL T control. Testing units may come up with other ideas. They'll be given wide latitude, but firm recommendations for workable T/Os and T/Es must be submitted on a rigid schedule. The aim is to begin reorganizing in 1962 with on-hand gear and be well modernized by 1965.

The test schedule looks like this:

- Phase I—Test of basic "combat" units is now beginning; it's to be completed by Jan 1961.

- Phase II—Test of combat support and combat service units begins Sep 1960.

- Phase III—Test of air support and air defense units begins Nov 1960.

- Phase IV—The whole Marine air-ground team will be regularly tested in scheduled exercises.

A Peek at the New T/Os

No one claims to have all the answers; several directly opposite solutions are proposed. Some proposals are deliberately unusual in order to stimulate thought. Remember, none of these proposals is firm; none will be until tests are conducted, recommendations made, staffed and approved. Here are a few of the newsworthy new approaches:

Rifle Company: Where does the M60 MG go? Rifle squad? Rifle platoon? Weapons platoon? There's a T/O to try each.

Will the M14 rifle change the fire team and squad structure? There's one platoon T/O without formal squads—its fire teams are "task organized."

Big innovation: a weapons platoon with 81mm mortars, an assault section, and a MG section—"packaged" on Mechanical Mules. The assault section has three 6-man squads, cross-trained to use any of these Mule-packaged weapons: 3.5" rocket launcher, Redeye, 40-lb flame-thrower, demolitions kits, AT mines

Infantry Battalion: Featured, a battalion fire support platoon armed with 4 Howtars (4.2" mortar tube in bob-tailed 75mm pack howitzer) and four 106mm recoilless rifles. To help run these weapons, plus the 81mm, is an organic battalion FSCC/FDC with an artillery captain, lieutenant, firecontrolmen.

The FSCC/FDC also warns Redeye of friendly aircraft. Onus of control

(Continued next page)

Camp Perry-Go-Round

Marine shooters took it on the chin during small arms firing at Camp Perry, then adjusted sights for service rifle competition beginning last week in August. A few bright spots as of press time:

- USMC Blue Pistol Team copped .45 cal NRA match. Score: 1152x1200 (36X). Team members: Capt H. W. Newton, 1stMAW; 1stSgt R. O. Jones, GySgt Michael Pietroforte, Sgt L. L. Hausman, all of MTU, San Diego.

- In individual competition, Hausman fired aggregate score of 2602x2700, won third place over more than 2,000 of the nation's top pistol shooters.

- Sgt R. L. Druckmiller, MTU, San Diego, shot a 190x200 to win .45 cal slow fire match.

- Reserve Marine CWO M. G. Klipfel, 4thSupCo, Stockton, Calif., won high Reserve classification in National Trophy Individual Pistol Match, placed second in .22 cal timed fire match.

- A Washington, D. C., Reserve Marine, Sgt Alan Dapp, won National Smallbore Rifle Position Championship.

Though out-gunned at Camp Perry, all was not lost for Marines. On another front USMC netmen swarmed all over Army, Navy, Air Force competition, carried home the Leech Cup. Tennis, anyone?

Reveille

Army units at Camp Perry are willing to accommodate Marine shooters everywhere except on the firing line. Even the 158th Army Band considered a request from the Marine range support group to break out with the Marines' Hymn whenever it passed their area. Army bandmen were quick to comply. Next day they formed in front of LtCol E. F. Schott's quarters, sounded off loud and clear.

It was 0530.

Both Hands

Two-handed pistol grip recently authorized by CMC has special interest for Maj J. M. Jagoda, MCS, Quantico marksmanship director. He tested it out a year ago during a pistol course at Cherry Point, N. C., ran 338 Marines through the two-handed grip, observed big improvement in all of them. Nine out of ten rounds fired at silhouette targets hit their mark. Five previously unqualified shooters used the new technique; all qualified. Says Maj Jagoda: "This method promises to make all Marines qualified pistol shooters... those already proficient should reach new heights."

Troop Tests

is on the aircraft. Redeyes may be at Co, BLT, or if necessary, RLT.

Infantry battalion staff could be different; similar to new RLT staff concept (see below.) Embossing-machine equipped administrators could be separated to form a battalion rear CP at or away from RLT or Div admin CPs.

Bn CO is told to exercise command from a main or forward CP, an OP, or from the air.

Infantry Regiment: This Hq is still in the proposal, but would slim down, do much less administration. One H&S Co T/O: 115 men, 85 of them communicators. Big news: the new staff look. There's no XO. A major 0130 handles administration. The asst CO is a LtCol OpnsO who directly heads major assistants in intelligence, plans and training, logistics, and fire support coordination (an organic 0802).

Marine Division: A Div Hq *Company* is built around two permanent staffs. The ADC has own staff, can act as Maneuver Director, Aggressor, handle contingency planning, or with light reinforcement, form a brigade headquarters. Most of the special staff to go to a new Division Service Battalion which consolidates: one MT Co, Med Co, Shore Party Co, and Light and Medium Support Cos. This big battalion would run 2,500 Marines. Other possibilities: a service company per RLT, or a Division Service Regiment, much bigger, and to assume FSR functions.

Artillery Regiment: There's little change proposed in the H&S Btry, but a big one in weapons. Two direct support battalions would keep 18 105mm howitzers. The third would be heliliftable with 4.2" mortars, or the Howtar version, or the Italian 105mm P.H. The XM-70 is, of course, still a white hope if ready. The general support battalion is composite with six 8" SP howitzers, six 762mm HAR (Honest John), and six 105mm Howitzers (towed, but SP by 1963). The battalion is rugged and it has an atomic capability.

Tank Battalion: Division may get a tank battalion, but only a few new tanks are in sight for a while. *Possibly missing:* Ontos. Ontos may modernize Reserve troop list.

Pioneer Battalion: May be beefed up, include an engineer company.

Recon Battalion: There's little change yet. An all-out attack on the intelligence problems of target acquisition, battlefield surveillance, and reconnaissance is slated for Phase II.

AmTrac Battalion: Proposed as organic to Division and with an LVTH Company again. Two lettered companies could lift a BLT each. The MT Co of the Service unit would add enough lift for almost two more BLT. It may include GOERs, the LARC, several diverse types of vehicle.

Force Troops: Big news is an integrated air-ground H&S Bn for each FMF. It would provide a ready MEF headquarters. Other force troops: one Engineer and one MT Bn each per FMF, one AA Group each and a Force Recon Co. Kept: Bridge Cos. Merged: EOD with Svc Bn and Topographic Cos with Force H&S Bn. There might be only one Field Artillery Group (at 29 Palms) with a HqBtry, two 8", two 155mm How, and two HAR Btries. Missing: the 155mm gun (SP). One outfit still up in the air: Pathfinders. They could relocate with MarDiv, MAW, MAG or remain where they are.

Summary

The course has been charted, guidelines are set. Marines can plan to fight with something old, something new in tactics, equipment, organization. HqMC has no single solution, wants to avoid a rigid dogmatic approach. Planners ask a fair, objective test of their ideas, will gladly consider yours. 1960 is a year of decision. HqMC has made the big one. They ask Marines everywhere to thresh out the details. The problem: optimum T/Os and T/Es—soon. The cost: extra work in the FMF. The prize: future budget dollars concentrated on the *essential* new gear for immediate combat readiness.

People-to-People Program

Training of foreign military in Marine Corps formal and technical schools has taken a big jump this fiscal year. Enrolled at Quantico, San Diego, Camp Lejeune, other MCBs, from 22 countries, are 644 officers and enlisted. Israel is sending their first student, Maj Rav Seren Raphael Eitan, veteran of Sinai Campaign, enrolled in Junior School.

Breakdown of foreign officers at MCS, Quantico: Basic Sch 44, CommOffCourse 14, Junior Sch 16, Senior Sch 8. Among foreign alumni: LtCol Raden Sohadi, Commandant of Indonesia's Marine Corps.

PX Rations

Bubblegum or chewing tobacco? A troop test may decide. General equipment planners are probing complaints that current "B" ration sundries pack is unsatisfactory. To find out, 200 cases each of assorted toilet articles, tobacco, gum and candy are going to 3d Wing, 2dDiv for evaluation during PHIBLEX 40-60 and TRALEX 6-60. To jog your memory, sundries pack supplements operational "B" ration, is designed for issue to troops when PX services aren't available. Packs are issued daily, one for 100 Marines, contain among other things: 1 safety razor, 4 tubes of shaving cream, 100 packs of cigarettes, 4 plugs of chewing tobacco, 20 packs of gum.

Marine Corps Museum

Five years in the making, a panorama of the role played by US Marines in American history unfolds 12 Sept when the Marine Corps' Museum, Quantico, officially opens. CMC is scheduled to officiate at tape-cutting ceremonies set for 1500. Quantico museum becomes the largest public display of Corps' relics in the country, supplanting exhibits at New Hall in Philadelphia and at Parris Island.

One Man Show

Attention: Fearless Fosdick

Followers of the comic strip in which machines are running amuck could find cause for alarm in a recent development at HQMC. The brand-new Data Processing Division has only *one* Marine. He's Col L. M. Mason, just appointed as head. The Marine-machine ratio is only temporary, of course.

Navy Aide

CMC's outer office now reflects the Navy-Marine team. He's getting a Navy commander as aide. Key Navy officers have had Marine aides for years.

Summer Training-At Home and Abroad

A busy summer for Reservists was capped with a pair of full scale exercises, one per coast. Involved in overall Summer 1960 training: 1,564 ground officers, 28,249 enlisted; from MARTC, 1,739 officers, 3,817 enlisted.

Exercises were similar in intent, varied in execution due to terrain. In Operation CHARGER, 22-24 August at 29 Palms, troops had no swamps, rivers to cross, advanced via foot, truck and helicopter. Chicago's 9thStfGru planned the operation, mobilized Organized Reserve units from eight states, half from east of the Mississippi. Longest commuters: New York City's 1stCommSupBn.

Operation WHIPSAW

2,000 Reserve Marines, 12 units from a dozen cities, climaxed two weeks active duty at Camp Lejeune with Operation WHIPSAW. Late July exercise combined air and ground forces, was billed biggest of its kind. Starring roles went to Detroit's 5thInfBn and Pittsburgh's 12thInfBn rigged as BLT's with land, sea and air capabilities.

Assault landing was assumed; work began with two-pronged attack through loblolly pine and marshland. Aggressors: weather (hot), mosquitos (mean) and 68th RifleCo of Camden, New Jersey (crafty).

Skills developed weekends groping through city parks and suburban woods held fast in Lejeune's tougher terrain.

Part of the action is described by Capt C. J. O'Brien, USMCR, one of the participants. "On the left, BLT-5 ground toward two major objectives which must be smothered to provide a safe jumping-off point on New River.

"First objective was ALPHA, a bristling crescent of tank traps, fallen trees, anti-personnel mines, well-placed rifle and machine gun positions . . . here Tallahassee's (1stTkCo) record-breaking tank gunners unloosed 90mm fire power, tore holes in the enemy lines."

Rifleman LCpl F. M. Rambo, Clementon, N. J., rated realism high. "WHIPSAW had everything but snipers and live rounds . . . generally it was pretty unpleasant. I won't forget it."

PFC R. D. Cummins, Hamilton, Ohio: "It's the closest thing to war we have ever seen."

Few of the troops who crossed New River via helicopter had known this brand of warfare before. For most, it took "getting used to." SSgt B. L. Oldeschulte, Warren, Mich., summed it up this way: "Somebody had to get used to Higgins boats, too." Vertical envelopment, for these Reserves, was transferred from theory to fact.

LVTP-5 got a bigger hand. The big amphibians forded French Creek in style, offered comfort, speed and safety to troops of BLT-12 and 71st Rifle Co aboard. Buttoned up in armor, troops crossed a defended beach, taxied through roadblocks, were landed on the doorstep of their objective.

While infantry and armor ground up turf, Air Reserves working out of Cherry Point held control of the skies.

WHIPSAW gave commanders a chance to use their own theories, like the battalion commander who borrowed a trick from the French in Algeria: a flying CP; helicopter-borne over the TAOR he was able to observe situations as they came up, rapidly—and first hand.

Quote from overall commander, Col V. M. Davis: "I can put it all in a nutshell. We're ready when they need us. We know, we've already done the job once."

Operation CHARGER

Col D. J. Peach, CO 9thStfGru, was overall commander for Air-Ground Task Force 21 involving 13 Organized Reserve infantry units, four Reserve VMAs working out of MCAS, El Toro. Ground units taking part:

- 9th Infantry Bn, Chicago, Ill.
- 79th RifleCo, Peoria, Ill.
- 91st Rifle Co, San Angelo, Tex.
- 1st105mmHowBtry, Chattanooga, Tenn.
- 1stTankBn, San Diego, Calif.
- 9th EngineerCo, Phoenix, Ariz.
- 6th TruckCo, Sacramento, Calif.
- 1stCommSupCo, New York, N. Y.

(Continued on page MCA-8)

Air-Ground Task Force 57		
CO	Col V. M. Davis	Washington, D. C.
S-1	LtCol R. E. McDowell, Jr.	Adelphia, Md.
S-2	Maj H. A. Snell	Rockville, Md.
S-3	LtCol M. F. Rose	Falls Church, Va.
S-4	LtCol A. F. Gattis	Washington, D. C.
Assault Forces		
5thInfBn	LtCol R. M. Paquette	Detroit, Mich.
12thInfBn	LtCol L. R. Reedy	Pittsburgh, Pa.
71st Rifle Co	Capt J. J. Hurst	Hamilton, Ohio
1st105mmHowBn	LtCol J. B. Macon	Richmond, Va.
2dMTBn	LtCol V. P. Brunelli	Port Newark, N. J.
3dCommCo	Maj J. J. Travers	Rochester, N. Y.
2dCommSupBn	LtCol R. H. Sengewald	Chicago, Ill.
1stAmTracBn	LtCol W. G. Justice	Tampa, Fla.
4thEngCo	Capt W. A. Mahaffey	S. Charleston, W. Va.
1stTankCo	Maj J. W. Owen	Tallahassee, Fla.
Aggressors		
68thInfCo	Capt J. Markle	Camden, N. J.
Air Support		
ProvMAG-1	Col J. H. Reinburg	Norfolk, Va.
VMA-231	LtCol E. J. Piotrowski	Grosse Ile, Mich.
VMA-233	LtCol J. W. Campbell	Norfolk, Va.
VMA-236	LtCol T. W. Wyatt	Anacostia, Va.
VMA-341	LtCol E. Buchser	Jacksonville, Fla.
MACS-19	LtCol J. R. Mallon	Detroit, Mich.



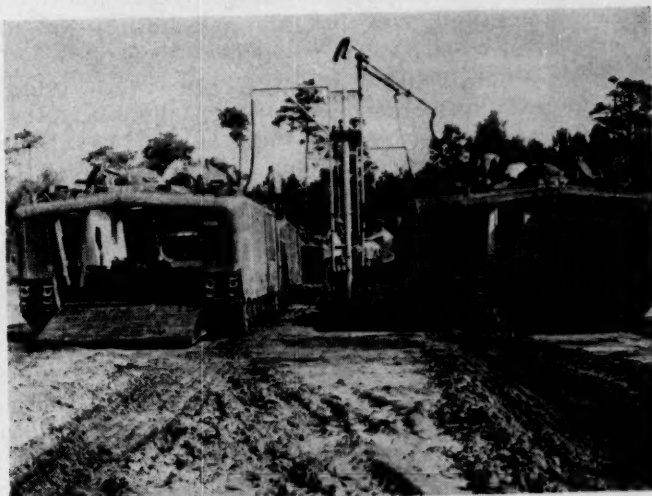
WHIPSAW Marines practice tank-infantry teamwork



Helicopter operations were similar on both coasts



Aggressors were crafty, created thorny problems



WHIPSAW Marines liked rugged safety of LVTs



At CamLej: sand and marsh. At 29 Palms: only sand



Both exercises called for 105mm howitzer support

SEAHAWK Critiqued

While Reserve Marines romped through training exercises on both coasts the FMF team overseas had a full summer, too. Early in the season a combined force of US and ROK Marines pulled a joint operation near Pohang, Korea. Ten thousand troops were involved, including units of 3dMarDiv, 1stMAW, 1stANGLICO, Force Recon, FMFPac, 3dRLT, KMC, 1st Cavalry Division, USA. A report on Seahawk has been received by the GAZETTE, contained these comments:

Helicopter Operations — Emphasis was on night flying. Here were first flights of a number of helicopters carrying troops during instrument weather conditions. Conditions of moon and sky precluded visual reference to ground or water. Flight conditions required one pilot to fly gauges, the other observed for aircraft, noted landing area. Night instrument flights set a new record for helicopter operations. During both day and night flights 2,925 US Marines, 1,525 ROK Marines were lifted by HMR-162. There were no serious mishaps. One hazard, which also bothered artillery operations, was dust. At rehearsal it was found that bone-dry LZ created so much dust it was dangerous to men and machines. Result: Primary LZ was moved to sodded end of K-3 airfield.

Communications — Some aspects of communications were off-beat, necessary for economy of Marines and gear. Number of units involved created Division-size requirement. Communication between Landing Force Aviation at Brigade Hq (Pohang) and VMA-332 (at Osan, 150 miles away) was provided via AN/TRC-75 installed at each unit for use of Tactical Air Command Net.

For extra communications between Brigade Hq and RLT-3 (KMC), (30 miles away), an AN/MRC-63, less vehicle and trailer, was installed aboard *USS Princeton*, used effectively.

Landing Force Aviation equipped two R4Ds with capability of automatic UHF relay, automatic FM relay, manual UHF retransmission and manual HF retransmission. Aircraft relieved each other on station in objective area, flew 112 hours total, 59 hours actual on-station time. Many times these aircraft provided the only communications between various dispersed units.

They proved invaluable in controlling helicopters flying out of line-of-sight range of control agencies.

Fire Support—Aerial observers worked with Landing Force Artillery during daylight hours to spot artillery and NGF. Critique:

- Biggest problem was finding suitable firing positions. As during combat years, artillery units found Korea's rice paddies tough going. Extensive use was made of stream beds, adjacent areas. These were also used as access routes. Result: slow, treacherous movement of batteries. Thick layer of dust on MSR created hazards, slowed movement.

Air Support — Eight A4Ds of VMA-332 worked out of Osan (K-55), 150 miles northwest of objective area. Contact with TACC or DASC was made at a point 50 miles northwest of K-3. Here aircraft were turned over to approach control aboard *USS Cavalier*.

Direct Air Support Center was furnished by MASS-2, which controlled all air operations, fixed wing and helicopter. DASC coordinated helicopter movements for lift of Marines and supplies, controlled assignment of aircraft to furnish close air support requested by attacking ground forces.

Shore Party — Beach Support Area was secured in record time. Rapid seizure of terrain immediately behind beaches allowed faster landing of SP units and remainder of Logistic Support Group than planned. Outstanding cooperation of Navy control elements permitted major departure from landing sequence table, allowed Landing Force to use this to their advantage. Shore Party was completely set up ashore, receiving supplies by H+90 minutes. Brigade Hospital was ready for casualties by 1500 on D-Day.



CHARGER—(Continued from MCA-6)

5thCommCo, Long Beach, Calif.

20th RifleCo, Rockford, Ill.

1stAirDelPlt, San Jose, Calif.

25th Rifle Co, of Gary, Indiana commanded by Capt Constantine Sangali, was aggressor unit.

General training objectives of the three-day problem: recon, night patrol missions, three helicopter assault missions.

Participating units got used to high, dry climate with a week of pre-exercise training in small arms firing, squad tactics, desert survival.

During the summer they fired 4,150 rounds of armor piercing M-2 ammo, 28,580 rounds of blanks.

They threw a total of 305 hand grenades.

Artillery units fired 4,048 rounds of 155mm ammo, 4,800 75mm rounds through "Skysweepers."

For the first time Marine Reservists got extensive missile training. These three units trained on Terrier for the first time:

4th 75mm AAA Btry, Fresno, Calif.

5th 75mm AAA Btry, San Jose, Calif.

7th 75mm AAA Btry, Pasadena, Calif.

FMF Travels

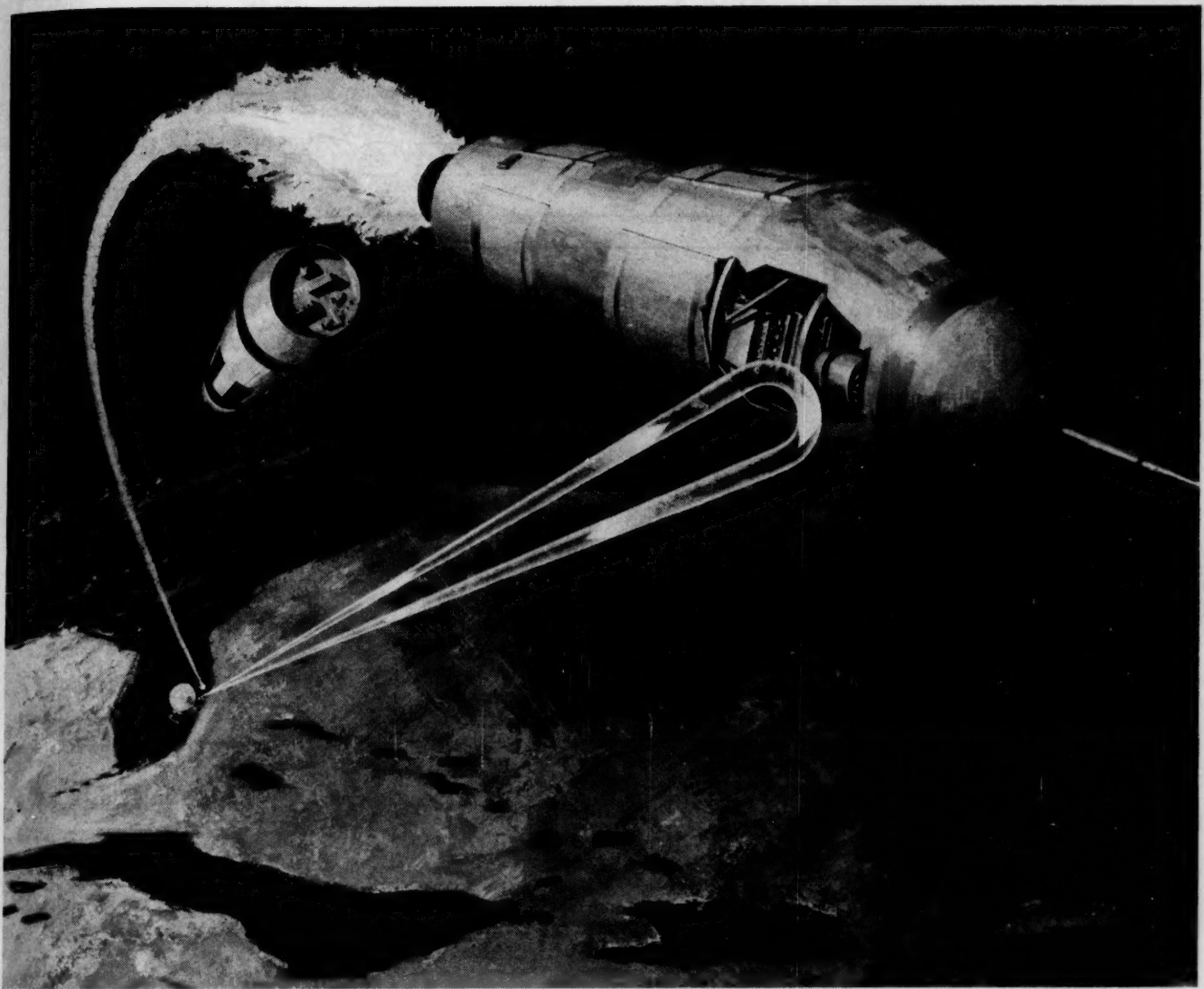
Okinawa-based 3dReconBn teamed with Philippine Marines, waited out Typhoon Mary, then made a pre-dawn landing on Corregidor. The next night they landed at Zambales Peninsula, spent two days patrolling to eastern shore of the peninsula. Transportation to and from *USS Washtenaw* was via rubber boats. The jaunt lasted 10 days, including five days liberty in Hong Kong. LtCol R. B. Smith commanded 3dReconBn.

- Five hundred middies from western schools joined 1stMarDiv assault units in a joint landing over CamPen's White Beach. Highlights: helilift from *USS Princeton*, which a few weeks ago was platform for MAG-16 helicopters in the Far East; a paradrop by one of 1st ForceRecon's Pathfinder Teams.

- 12thProvMarBrig climaxed a two-month Caribbean exercise with a two-pronged attack on long-suffering Vieques. Included: 2dMarDiv's 3/2, HMR-264, VMA-331, *USS Boxer*. Overall commander was Col D. A. Bangert. ProvMAG-30 commander was LtCol T. M. Forsyth.

- Maj V. J. Fenton's VMA-224, home-based at MCAS, CPNC, moved briefly to MCAS, Beaufort, S. C., for a week of FCLP (Fleet Carrier Landing Practice) aboard *USS Saratoga*.

- 3/7 left CamPen 24 Aug for Okinawa. It's the last of 1stMarDiv units affected by rotation, completes cycle between 1st and 3dMarDivs.



The Command Guidance System for the Air Force Titan, shown here as the first and second stages separate, was developed by Bell Telephone Laboratories and is manufactured by Western Electric. Flight information is analyzed by a Remington Rand-Univac computer.

How the Air Force puts Titan on Target!

**Bell Telephone Laboratories Command Guidance System
gives deadly accuracy to new ICBM**

Suppose you were asked to guide a 110-ton missile into space with a controlled velocity so that its nose cone could then sail free of all control and hit a tiny preselected target area 6000 miles away.

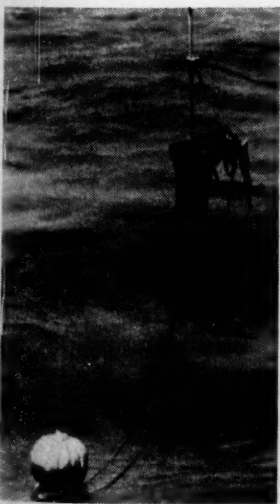
This was the objective for Titan which was given by the Air Force to Bell Telephone engineers and scientists. The result was a new Command Guidance System which guides Titan with "pinpoint" accuracy.

For the first few hundred miles of flight, a ground control center tracks the missile and sends instructions to keep it precisely on course. Commands are also sent to cut the engine off at the moment of proper velocity.

To show how accurate this guidance must be: *at the time of cut-off, when Titan may be traveling some 24,000 feet per second, a difference of one foot per second in the speed could cause a miss of one mile.*

The system has already guided missile nose cones so accurately that they could be recovered thousands of miles away by waiting ships. And it will play a key role in forthcoming satellite and space probes.

This new guidance system is the product of our many years of communications research and experience—which also help bring you the finest telephone service in the world.



Nose cone of an Air Force Thor-Able test missile, guided by "brains" developed for the Titan, being recovered from the South Atlantic.

BELL TELEPHONE SYSTEM



SEPTEMBER 1960

VOLUME 44

NUMBER 9

40¢

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Marine Corps Gazette

Professional Magazine for United States Marines

Published by the Marine Corps Association in order to provide a forum for the expression of matters which will advance knowledge, interest and esprit in the Marine Corps.

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Opinions expressed in the Gazette are those of the authors. They do not necessarily reflect the attitude of the Department of the Navy nor of Headquarters, United States Marine Corps.

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NEW LIGHT ON RELIABLE DRIVE SYSTEMS

Go potential and grow potential, basically, are what make the Army's H-23D's entire drive system a valuable investment in helicopter technology and production.

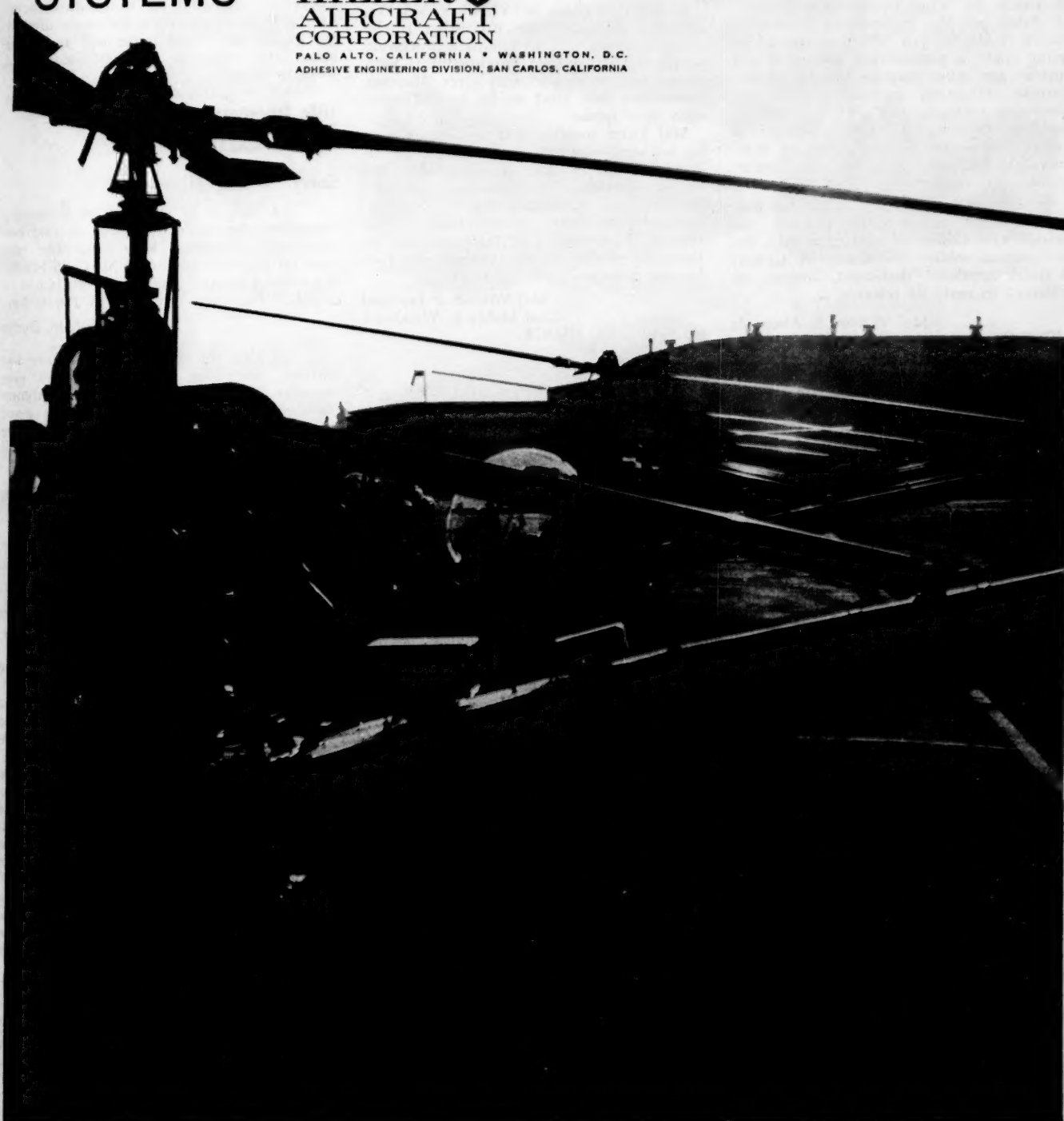
GO—the entire system is rated for 1,000 hour life between major overhauls by both the U. S. Army and the Bureau of Aeronautics. Army H-23D Ravens, currently logging more than 7,000 hours per month at Camp Wolters, alone, are the first light helicopters ever to receive such confidence of the Military.

GROW—because the H-23D's drive system is presently loafing, the limits of its growth and development lie in helicopters yet to come—helicopters that will bring even further economies of production, integration and operation.

Designs are one thing. Deliveries another. Both come from

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ADHESIVE ENGINEERING DIVISION, SAN CARLOS, CALIFORNIA





MESSAGE CENTER

For letters of professional interest. Length: up to 250 words. Rates: up to \$20.

But Is This Good?

... Bravo! The MARINE CORPS GAZETTE has gained immortality; you have been quoted in *Red Star*, the Soviet Army's newspaper.

On 24 June, an article, *Plans—Aggressive; Morale—Bestial*, affected to show American military morale as low and its character as base. In the *Red Star* piece, an article by Wing Commander Gellner, *An Ethos for the Professional Soldier of Today* (GAZETTE: Jan '59), was quoted as saying that "a professional soldier of the nuclear age must prepare himself in the German (Hitlerite) manner, without any concession to humanity." These views reflect the thinking of current bourgeoisie society, permeated by the spirit of individualism, personal gain, lust for money, enmity and competition.

Rewriting the quotation to suit his purpose, the author, a Soviet Colonel, has twisted Cdr Gellner's words. In fact, the professional soldier envisioned by Gellner is quite another: "dedicated, austere, indifferent to material rewards. . ."

Maj William F. Alsop, Jr.

MCLFDC
Quantico, Va.

Slide Rule Critic

... Since I am in the 10th Marines, I read with particular interest Capt Wilson's article, *An Unexpected Force of Artillery* (GAZETTE: July '60). I concur with most of his ideas and suggestions. However, I believe that he errs on one point: Using the figures in his article, a simple slip of the slide rule shows that the 105mm projectile has .206 lbs. of explosive per lb. of projectile compared with .117 lbs. for the 4.2 mortar.

1stLt F. B. Campanella

Hq Btry
4/10 2dMarDiv
Camp LeJeune, N. C.

Play Santa

... Packed away in many a Marine closet or footlocker is an obsolete beaver overcoat gathering dust and moths. If you have been waiting for a suggestion about its disposition you might be interested in this solution. Give it to a Korean Marine.

Korean winters are just as cold as when you were there, and good Marine cloth is difficult to acquire. Therefore, a Marine overcoat would make a welcome and worthwhile gift. Naturally they could be altered to fit by the recipient.

If you should decide to send a coat, remove the buttons, and address it to the commanding officer at the address below.

LtCol H. J. Woessner
Marine Component, Naval Advisory Group
APO 301, c/o Postmaster
San Francisco, Calif.

Yems, Yams, Yea, Nay

... Major Leon Utter's hardhitting article "Yems, Yams, PG, E3, and You" (GAZETTE: July '60) is appropriate and timely.

It seems, too, that we are losing sight of the human factors by reducing the status of each Marine to numbers on IBM cards or entries on magnetic tapes. However, no one questions the necessity for the data processing machines and what they do.

Reducing Marines to "YEMS, YAMS, O's, and E's, etc." for mass processing is the administrator's dream. The data processing people have furnished administrators with tremendous new authority over Marines. Sometimes they tend to be carried away with their power.

Maj Utter implies that battles are won by privates, corporals, and sergeants as individuals, not as statistical pay grades. We say we should use our statistics, but let's not lose sight of the fact that each Marine deserves personal consideration. The phrase "Noncommissioned officers are the backbone of the Marine Corps" must not become a meaningless slogan.

Maj William J. Beer and
Capt Melvin L. Woodward

2d Supply Co, USMCR
NMCRTC
Dayton, Ohio

... I can find some sympathy but little or no agreement with Maj Leon Utter's plea for rank status.

A little forethought might have prompted the major to consider a simple truth: The "E-1 through E-8" usage is an offspring of the new rank structure. It will lose currency when the "acting" ranks have been purged either through promotion or expiration of service.

Until this situation clears itself, as it eventually will, needless confusion both in casual and barrack conversation or on official memoranda will be avoided by employing this simpler, clearer designation.

LCpl Edward Bowers

HQBn
MCS, Quantico

For the Conservatives

... Capt W. Grant's article, *Troop and Stomp* (OBSERVATION POST: Aug '60), has met with much more approval than you can imagine. Troop and stomp, parades, and ceremonies are indeed a waste of time. But, there are even greater enemies of efficiency in the Marine Corps. A few:

- Rank Insignia. It makes juniors feel inferior and stifles creative thinking.
- Uniforms. No one wears the uniform ashore anymore, it is obviously unwanted. . . and what purpose does it serve? Think of all that wasted time spent shining leather and brass.
- The Marine Corps Emblem. By all means, let's do away with the Marine Corps emblem.

1stLt J. F. Cody, Jr.
SDT, MCS
Quantico, Va.

Ivan's Marines

... Mr. Gajewski, in his letter, (MESSAGE CENTER: June '60) was partially correct in his description of the naval infantry's role in WWII. He neglected to add that the naval infantry brigades were a combination of both sailors and soldiers and that they conducted a number of amphibious operations in addition to taking part in the major land engagements.

The present day naval infantry man wears a Soviet Army uniform with magenta (denoting infantry) shoulder boards, with the fleet lettering on them. If he were stationed in the Baltic Area, the letters would be "B F" for Baltic Fleet. I have seen them in Murmansk, Leningrad, Moscow, Odessa, Baku, and Novorossiysk and am certain of their existence.

A book entitled "Morskaya Pekhota" (Naval Infantry) was published in Moscow in 1957. It states the importance of amphibious operations and the necessity of a specialized trained force to conduct them. As the Soviets push their influence around the globe, more and more will be heard about the "Russian Marines"—already a force in being.

Maj Murray O. Roe

1stBn 2dMarines
2dMarDiv
Camp Lejeune, N.C.

Sorry, Wrong Number

... I wish to inform you of a mistake regarding the article *Programs to Improve Readiness* (GAZETTE: May '60). The picture on page 24, captioned MAG 36 HR28-1 Landing aboard USS Princeton, is not of the USS Princeton but the USS Thetis Bay.

LCpl J. M. Dustin

... Unless the island superstructure has shrunk, the four prominent 5"/38 gun mounts have been removed, the antenna layout has been changed and the stack removed in the last 2 hours since I came on watch, your picture is a smaller version of the Princeton called the Thetis Bay.

Ens J. R. Dawdy

USS Princeton
c/o FPO
San Francisco, Calif.

Bull Pup Barks

I want to add my bit to Maj Traynor's comments on the Bull Pup (MESSAGE CENTER: June '60).

Several years ago I was a student at the Senior School. The aviation ordnance procurement experts from HQMC paid us a visit. They wanted the aviator students to voice an opinion on the projected weapons stockpile. Non-atomic, of course.

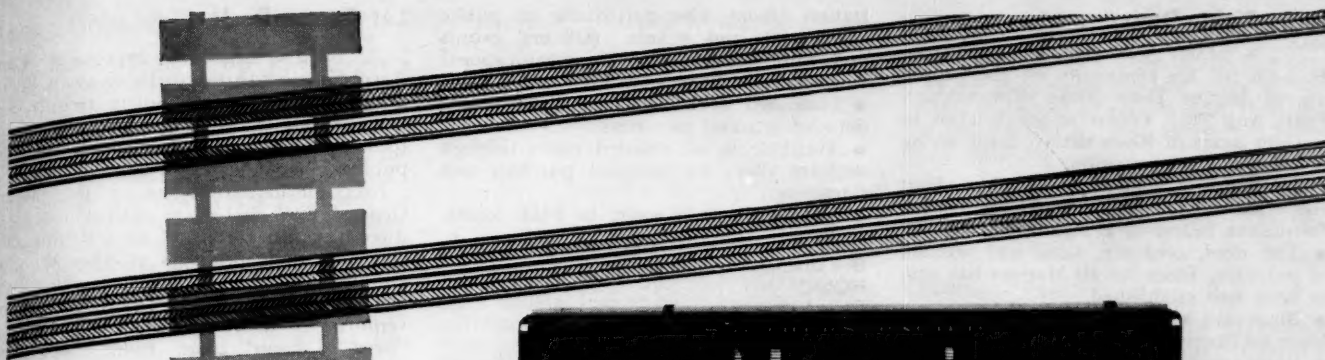
I distinctly remember our condemnation of the Bull Pup. We could not visualize, even from a theoretical viewpoint, how a 250 lb. bomb could accomplish much. It makes no difference how it is dropped or projected. The business end is still an itty bitty bomb, as Moose says.

As a matter of fact, the boys from Washington agreed with us. This supported their conclusions. But, unfortunately, the situation had progressed beyond their control. So now where do we stand?

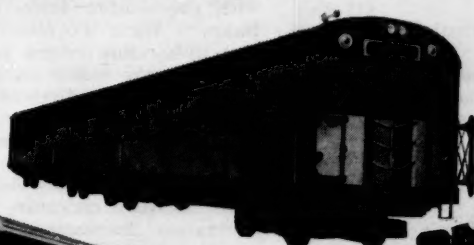
I'll put my chips on a packet of ZUNIs with HEAT heads and take on the Bull Pup against a tank any day.

LtCol R. F. Steinkraus
Staff, COMSTRIKFORSOUTH
Navy #510
c/o FPO
N.Y., N.Y.

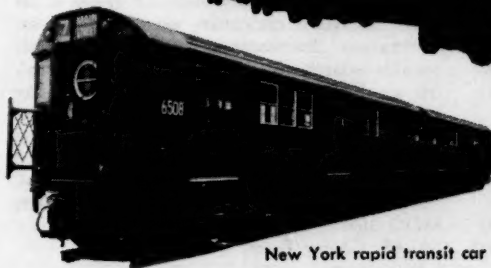
Marine Corps Gazette • September 1960



Southern Pacific lightweight baggage and express car



Cleveland rapid transit car



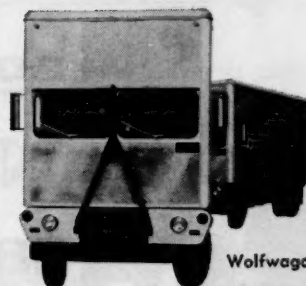
New York rapid transit car



LVTP-5 amphibian tank



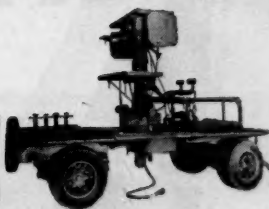
Union Pacific lunch-counter cafe lounge car



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Dress Right, Dress

... A hearty well put to MSgt L. F. Hipwell for his comments on the proper use of Marine Dress Blues (OBSERVATION POST: Aug '60). Efforts to stir interest in a wider usage of Blues deserve some airing of views of the opposition.

To reinforce MSgt Hipwell's ideas about the place of these uniforms in the Marine Corps, the following is submitted:

- The need, economy, value and wisdom of providing Blues for all Marines has never been well established.
- Blues are seldom worn voluntarily on leave or liberty.
- Blues are incompatible with combat readiness and modern FMF service.
- Blues are of questionable publicity value since few civilians see dress formations to be impressed by individual Marines in dress uniforms.
- Issuing Blues is a questionable investment of defense funds.
- Dress uniforms are not important factors in unit morale as thousands of veterans, who never wore them, can testify.
- Dress Blues may gain attention in the recruiting service, but the Corps should have more to offer a young candidate than a gay uniform.
- Blues are excellent, unique and impressive for public ceremonies at a limited number of posts, stations, and all warship detachments.

A sensible policy for the procurement and usage of Dress Blues would be:

- Required of all officers.
- Made available on a "unit wardrobe" basis (as in the British Brigade of Guards) through supplemental funds for post and

station troops who participate in public ceremonials and guards. (Officers' swords and Sam Browne belts as organizational equipment in these units.)

- Furnished in a similar manner to sea detachments and recruiters.

- Available to all enlisted ranks through uniform shops for personal purchase and retention.

- Not required or worn in FMF formations.

Col J. A. Donovan, Jr.

G-4 Division
HQMC

Hava No!

... I wish to register a strong protest against pieces such as *King of the Banana Wars* (GAZETTE: June '60).

In my opinion, this type of article is utterly incongruous under the same cover with the erudite works of such men as Baldwin, Hart, Toynbee and Wolfers. It is a publication edited and illustrated to appeal to the reader in search of morbid and bloodthirsty diversion. I had always believed in the integrity of the GAZETTE, and felt it was published for a higher purpose.

In fact, *King of the Banana Wars* is an overdramatized caricature of a political assassination. Its tenor is fascistic and it advocates apartheid. It glorifies the immoral, the unchristian and the unethical. It may have looked good on pulp or newsprint, but on the slick pages of the GAZETTE it shows up as trash. The entire issue was degraded by this piece and I, for one, was offended.

Capt J. G. Martz

MOQ 352
MCAS, Cherry Point, N.C.

Let George Do It

... You've heard the expression "Pack Rat;" he won't throw anything away. We're all guilty. We keep obsolete records, file cabinets full of directives that don't apply to our sections. We maintain directives and publications we don't need. Why?

Every headquarters has a Central or General Files Section to maintain current directives, file a copy of all outgoing official correspondence, and monitor the distribution of publications and directives. Let them do their job. Hold periodic inventories to determine requirements on a "need to know" basis. Don't wait to be asked, do it now.

Remember next time that urge to save it grabs you, the Files Section has it. If we all abide by this rule, the "Pack Rat" will be out of business.

GySgt Wallace McIver

Force Inspector Section, FMFPac
FPO, San Francisco, Calif.

What's in a Name?

... In regards to your request for a name for the XM-70, here's a suggestion: Let's call it the "Griffin."

Why? Read the definition for this word in the dictionary and the answer is obvious. "A fabulous animal—represented with the body and legs of a lion and the head and wings of an eagle, signifying the union of strength and agility. An emblem of vigilance."

Capt J. W. Hanker

Qtrs 394-A, MCS
Quantico, Va.

BOUNDARY LAYER BREAKTHROUGH

New BLC-130 takes off or lands in five times its own length



Boiling Over—Or Not

... Re Let's Perk Up Our Reserves (OBSERVATION POST: Aug '60): Capt Venditto has jumped feet first into a cauldron of hearsay and ambiguity. His premise that MCR units are spawning grounds for inactivity and the disenchanted just doesn't hold water. On the contrary, there's no room for goof-offs in the Reserve program. Those who fail to cut the mustard find themselves on the outside looking in. The Reserve Forces Act of 1955 spells it out: 95 per cent drill attendance or out. Simple.

Regarding the captain's view that Reservists spend an inordinate amount of time in trivialities, and that some CO's "have missed the importance of getting the troops away from the drill halls . . . you have only to look at the records established by Reserve units during weekend training exercises in the past year. Since the fall of 1959, when they were authorized and endorsed by the Commandant, Reserve multiple drills have been SOP. By that same token, the primary mission of the Reserve is training for mobilization. There is only one way of accomplishing this objective; and it isn't with trips to museums and Bunker Hill.

The Organized Reserve, the 48 Drill-Pay units, is operating under strict budgetary limitations, a polite way of saying that every cent has to be watched and counted. Justifying boondoggles to battlefields and the like could never be considered. The USMCR is proud of its records and abilities. Reservists know, too, that they will be called upon to step into FMF billets with a minimum of delay in event of mo-

bilization. All training is directed toward that end.

Perk up our reserves? They're perking!

MSgt W. A. Daum

The Reserve Marine
HQMC

... I agree wholeheartedly with Capt C. R. Venditto when he says we've got to offer something besides the standard reserve training program if we expect men to remain interested enough to re-enlist. Taking trips is a step in the right direction.

The tour of the Rand McNally Map Co. he mentioned was interesting and certainly gave us a great deal of background knowledge. There must be historic sights in every state that would be worthwhile to visit.

For example, when I first joined the reserves in 1953, there was a marksmanship program in progress. Many of the men participated and got a great deal of enjoyment out of it in addition to improving their shooting. Although the matches took place during the shooters' own time, the participation wasn't affected.

Reserves also seem to lack discipline and NCO prestige. No one can increase the prestige of an NCO more than the NCO himself. Regular NCOs have years of unbroken service and experience to fall back on. The reserve NCO doesn't. I believe all reserve NCOs should attend leadership school during one of their summer camps. This should be a prerequisite for promo-

tion. If these schools are not available, it would be worth the investment to organize them. One for each coast would suffice.

If we expect the present crop of six-month graduates to remain past their initial enlistment, we had better do something—and fast.

Sgt McDonald Jones

922 N. Highland Ave, N.E.
Atlanta 6, Ga.

Cheers

... Three cheers for Capt B. H. Liddell Hart's, *Marines and Strategy* (GAZETTE: July '60). I have never read such an unbiased, objective, and completely just article, in respect to our Corps.

Cpl Richard Detjen

VMA-216

N.A.S.

Seattle, Wash.

And Sneers

... The GAZETTE never fails! Again the literary genius of your staff humorist, the author of *Salty Skipper*, has provided a round of chuckles.

Not to suggest plagiarism, but did the author get the idea for the article on the First Sergeant's duties from Bilko? (You know—Bilko of TV fame.)

It was a wonderful piece of satirical writing.

Congratulations!

Maj H. D. Fredericks

HQMC

Imagine a 50-ton Hercules airfreighter lifting off in just 500 feet, from a standing start on an unprepared field. Or picture the big prop-jet stopping after touchdown in 520 feet. This performance of Lockheed's Boundary Layer Control C-130, at mid-point of a 2000-mile round trip mission, is truly remarkable. But its significance goes far beyond the spectacle itself.

The BLC-130 brings true STOL capability to Air Force support missions. Whether it has to rush 92 combat troops to a spreading brush-fire fight, or airlift 18 tons of food to some remote hunger

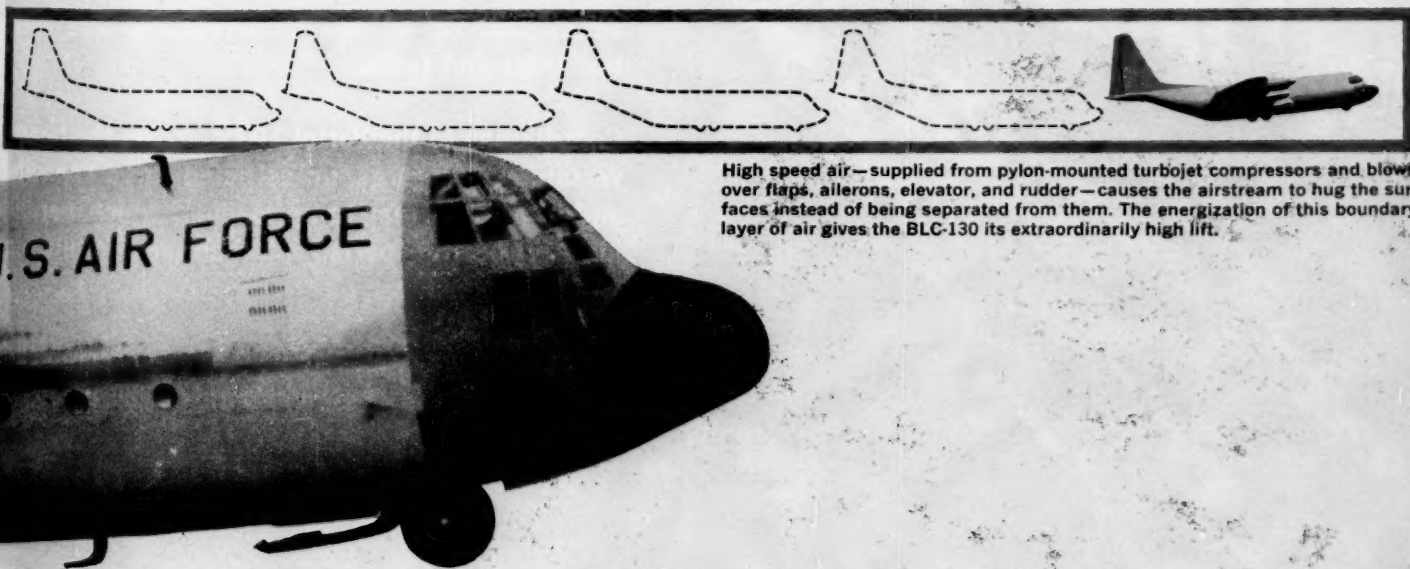
spot, the huge airlifter will be able to deliver its payload closer to the action than ever before possible.

A test bed BLC-130 has completed advanced flight tests, clearly illustrating the feasibility of boundary layer control on big planes.

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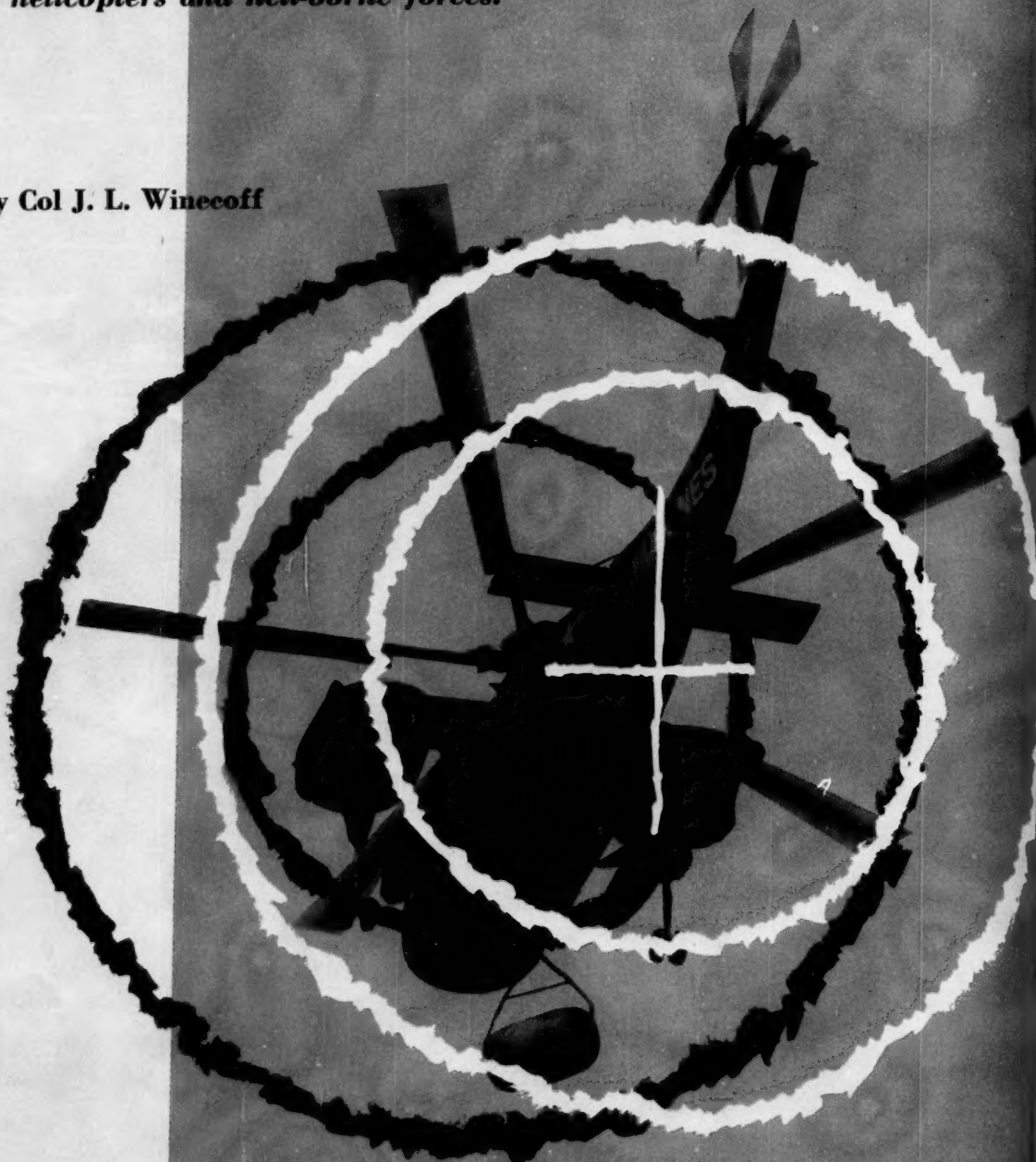
HAUGHTY

HELICOPTERS.

are not a panacea. Vertical envelopment will be

successful only when employed with full appreciation of the limitations of helicopters and heli-borne forces.

By Col J. L. Winecoff



EVER SINCE THEIR COMBAT POTENTIAL was first visualized by certain farsighted Marine officers, and especially since late 1947 when an experimental helicopter squadron (HMX-1) was organized at Quantico, the Marine Corps has been busy "selling" helicopters. It has done a good job. It has "sold" its product. Now every modern army is hastily acquiring as substantial a helicopter stable as its budget will permit. And the US Marine Corps, with an ever-improving chopper capability, is head over heels in love with its concept of vertical envelopment.

Yes, the helicopter is in—even to the point that our aviators don't consider the chopper pilot

a country cousin. It looks good on your record. The most ungainly looking aircraft of the jet age has truly "arrived." We can now disband the sales department and get on with another facet of the business, a true appreciation of our new capability. Love is sometimes blind; our concept of vertical landings must have its limitations.

True, helicopters have previously proven their worth in combat. But in what way, and against what? When the Marine Corps took another first by the use of helicopters in Korea they were highly successful. However, remember that our chopper capability at that time was extremely limited. We had only utility-type machines until the arrival of HMR-161 in late August of 1951. This transport squadron brought Sikorsky HRS-1 helicopters which under field conditions could lift little more than a fire team. Our helicopter operations consisted mostly of utility-type flights; larger jobs normally were supply missions and relief of front line battalions. HMR-161 and the VMO-6 helicopters both performed magnificently in combat. They demonstrated their efficiency under the conditions existing and offered a promise for helicopter operations of the future.

However, in Korea we possessed an air superiority approaching air supremacy, and a highly superior combat capability in almost all respects except in numbers of troops involved. While our choppers were occasionally subjected to small arms fire from the ground, they rarely had much to fear from the enemy. We never attempted a helicopter envelopment. Indeed, their excursions over enemy territory were most rare; the risk was worthwhile only for casualty evacuation and rescue missions.

The French in North Africa and the British, against Communist terrorists in Malaya, also have used choppers in anger and to excellent effect. But here again they have been employed in an environment of considerable superiority, against an enemy with little more than a guerrilla capability. In such operations we have ample proof that helicopters can be used—almost with impunity

—to great advantage.

But it doesn't necessarily follow that helicopter operations will be equally successful in combat against a first-rate enemy. We cannot honestly equate their past performance with our hopes for their future. Neither does it follow that the use of helicopters in our concept of vertical envelopment will always meet with success. To attain our ends and get the most from our choppers we must face up to the fact that such operations present risks and problems—before we have to learn the hard way.

The Enemy Target

Helicopter operations will be mobile operations at their modern day best. Field Marshal Erwin Rommel, a past master of mobile warfare, put his finger on the crux of such operations. He wrote, "In mobile action, what counts is material, as the essential complement to the soldier. The finest fighting man has no value in mobile warfare without tanks, guns and vehicles. Thus a mobile force can be rendered unfit for action by the destruction of its tanks, without having suffered any serious casualties in manpower. . . . Position warfare is always a struggle for the destruction of men—in contrast to mobile warfare, where everything turns on the destruction of enemy material."

Is it unreasonable to turn Rommel's thinking towards helicopter operations, to the idea of vertical landings? Tanks and motor vehicles were his boys. Helicopters are ours. In one way they will have a similar influence on battle. Mobility is a principal advantage of each. Chopper maneuverability is beyond question. It's the greatest thing since the wheel. Helicopters are *never* road-bound; even the most modern ground troop carriers and tanks often are.

But while helicopters outdo our best ground vehicles in maneuverability and speed, they are at a disadvantage in two other respects. As yet they do not sport the armament necessary to make them a fighting vehicle, as do tanks. Nor do they possess armor plate to reduce their vulnerability to enemy fire. And it

is unlikely that either of these limitations will be overcome. Helicopter squadrons, just as motor transport battalions, will always be combat support units.

Helicopter vulnerability is something we don't like to think about. Most of us shudder at the thought. But our Korean experience, while admittedly under favorable conditions, tends to confirm that carefully chosen approach routes and evasive flight tactics can do much to avoid enemy ground fire. Helicopters proved able to avoid or sustain small arms fire to a surprising extent. Losses were small. Nevertheless, accurate enemy air and ground fire both present a real danger. We must compensate for this by using every possible scheme to avoid or disrupt enemy attack. In tactical



operations, helicopter transport units will undoubtedly be sought out and given a high priority for destruction.

Assuming this is true, how can we improve our tactics and techniques? What steps can we take to assure that future combat helicopter limitations do not override their capabilities?

The Helicopter Unit

Perhaps because aircraft have always flown off airstrips chopper units normally do so today, even in field exercises. It is a habit, a convenient habit which reduces problems of administration, supply and maintenance. Everything is much simpler when a squadron's choppers can be lined up in an evenly spaced row close to their sources of existence. But the first successful enemy air attack certainly will prove the



MAG-16 helicopters pick up supplies from USS Princeton for delivery to 1/7 during PHIBLEX.

error of these ways and force us to adopt a less convenient but smarter technique.

Helicopters do not have to be parked in the open field or on an airfield, a natural magnet for enemy air attack. They are well suited for dispersion and concealment. In this, and in many other ways, chopper squadrons are more like ground than air units. For maximum effect they must be located closer to the point of enemy contact than most aviation units. Their base of operations will have to move more often, both to keep up with the battle and to reduce vulnerability. Consequently, many of the normal techniques of other aviation components cannot be normal for helicopter units. And now is the time to perfect the techniques necessary for minimum vulnerability in combat consistent with mission accomplishment.

We are not likely ever to have an

overabundance of helicopters. Considering this, and their great cost, we logically must not employ them extravagantly. When a task can be accomplished efficiently by other means we should rarely use choppers. Nor should we attempt to use them in areas where they will be subjected to enemy attack, unless the results to be obtained override the calculated risk. Everything possible must be done to assure a high squadron aircraft availability, and an ever-adequate supply of fuel. Neither will be easily maintained under combat conditions. Our transport helicopters must be husbanded for their primary job—transportation for the Sunday punch.

Increased dispersal, logistic and administrative austerity, improved concealment, greater use of deception and cover, and the habit of nighttime operations, must all be developed if helicopters are to live

long on the battlefield. Our helicopter units have a long way to go in these directions.

The Heli-Borne Unit

The most renowned US Navy author once wrote, "Force does not exist for mobility, but mobility for force. It is of no use to get there first unless, when the enemy in turn arrives, you have also the most men—the greater force." Adm Mahan was too far behind our times to have been thinking of helicopters, but his remark is probably as sound today as it ever was. It's still good to get there first, and with the most.

Few would deny that heli-borne units sacrifice something in exchange for the mobility they gain. Until we have better choppers or more adaptable equipment, we must continue to rob Peter to pay Paul. In vertical envelopment, a major worry will be how best to compensate for the robbery.

Napoleon stated one of his favorite maxims in this way, "Good infantry is without doubt the sinews of an army; but if it has to fight a long time against very superior artillery, it will become demoralized and will be destroyed." To this truth any member of the artillery fraternity, and any gravel cruncher who had has to fight a long time against very superior artillery, will attest.



Col Winecoff wonders if the Marine Corps' love of helicopters is blind, advances the idea that though the concept of vertical envelopment can succeed, the image of such operations for many, is out of focus. He was commissioned in 1935 after graduating from Georgia Univ, spent WWII in Pacific theater as an artillery officer. He was 2½ years Chief of Supporting Arms Section, T&T Board, MCLFDC; served as president of the board for six months.

The heli-borne force's biggest loss is in its artillery. In the present state of vertical envelopment we have sacrificed the 105mm howitzer for the 4.2 inch mortar. Range-wise, this is highway robbery! Fighting someone with a longer arm can be mighty frustrating. And the 4.2 has a mighty short arm. Let's hope that the heli-liftable XM-70, the 115mm boosted rocket we are working on, or some even better replacement, proves out. It is imperative that we regain our reach if we are to lessen vulnerability of the heli-borne unit.

In the meantime, the problem must be eased by reducing the enemy capability during preparation for the landing. After the landing, additional fire support can be provided by elements outside the heli-borne force. A rapid surface link-up can assure that the force need not fight long with inferior artillery. To compensate for any artillery shortcoming, the force rates first priority in air support. The availability of artillery or Naval gunfire support from outside the tactical area of operations could prove to be a decisive consideration in selecting the landing-zone. The heli-borne force must not be used where time or place preclude adequate combat and service support from the main body. Employment at great distance must always be suspect.

The Application of Mass

Our Marine divisions probably will never be completely 'copterized, able to move by helicopter in an acceptable period of time. The fully 'copterized BLT seems as much as we can expect for some time to come. Consequently, when any real resistance is anticipated, our heli-borne force will most likely be blessed with a larger earthbound appendage. To put it more logically, the heli-troops will normally be a small part of our main body—certainly less than one-third of our fighting strength.

Herein lies a temptation which our commanders must scrupulously avoid: a beautiful opportunity to violate the principle of mass. The

ability of a small part of our force to so outrun the main combat strength must not lead to piecemeal commitment of these forces. They must only be employed at a time and place compatible with their combat power. Their strength, in conjunction with that of the main body or of a link-up force, must provide the superiority necessary to do the job. They may well be employed as the unexpected jab before a knockout blow. But in any event, cohesion of force must be maintained. Once the jab has been thrown, the knockout blow must be ready. We are unlikely to win the fight with jabs alone.

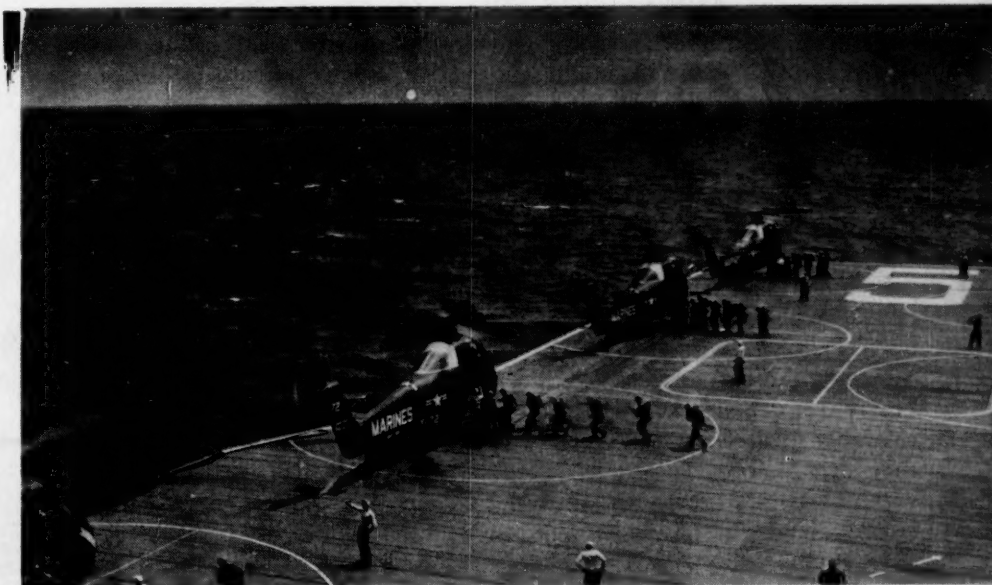
Once committed behind the enemy lines, the withdrawal of a hard-pressed heli-borne force will be a ticklish business. Experience may prove that, once engaged, a helicopter assault force must not be forced to withdraw. Any withdrawal must be of their own choosing and *not* because of overwhelming enemy attack. In such a case ground movement to their support most likely will be the only feasible course of action. Plans must always envision this requirement, and provide the capability therefor. The French affair at Dienbienphu, where even casualty air evacuation during darkness eventually proved impractical, sounds a clarion call of warning.

Amphibious Assault from the Sky

The idea of amphibious vertical envelopment was spawned in the wake of the atomic bombs of WWII. It provided the key to amphibious operations under the threat of enemy nuclear attack. Helicopter mobility would provide the speed and dispersion required to do the job. Our atoms would sterilize the way.

But in the current climate of atomic stalemate the situation is different. Suppose we don't atomize the enemy. Can helicopter forces still do the job? The question strikes at the roots of the concept of amphibious vertical envelopment. It is earnestly argued. Helicopters are great for jobs behind our line, but do they have the stuff for a line buck or end run against a good team? Won't the choppers and the small undergunned ground forces they carry prove easy bait for a strong enemy? In brief, will it work? Conscientious misgivings are expressed more often than not.

These questions won't be truly answered until actual combat has shown the way. But it is obvious that such thoughts stem from too much helicoptimism, to coin a word. Somehow we must have failed to get across a point. We have oversold helicopters if we have created any



Start of a night vertical assault by 1/7 via HMR-162 'copters



idea that we can merely thumb our nose at the enemy and land on his shoulders. Without an atomic preparation we certainly must proceed with caution.

Of course helicopters and the troops they carry are vulnerable. No one could honestly claim that they are not. However, vulnerability is all relative. It can be reduced by proper tactics and techniques; but in the final analysis it is directly related to the enemy's combat strength. This is something we must not forget in helicopter operations. Vertical envelopment will not be attempted when the calculated risk is too great. It is high time we discard any ideas to the contrary.

When, and precisely where, we conduct helicopter assault operations will depend largely on the enemy's combat strength and disposition, and on the effect of our preparation of the objective area. Like any major amphibious operation, the amphibious helicopter assault will be feasible only under the protective cover of air support. Without unquestionable air superiority large scale helicopter landings will be risky business. To an unengaged enemy pilot we would look like sitting ducks. Operations in darkness or reduced visibility coupled with deception and concealment will perform normal so long as the enemy retains an air threat of any consequence. The nearer our attainment of complete air supremacy over the objective area, the better the environment for successful vertical envelopment. We will require a higher degree of air superiority than ever before. In any event, we will not land in strength until the enemy air threat has been reduced to a manageable level. This requirement is not new for amphibious operations. But perhaps it needs

reemphasis if we are to convert the doubting Thomases.

As for the enemy ground forces, we have always avoided strongly defended beaches wherever possible in the surface assault. Fortunately, with helicopters we will have a wider choice of landing points. We must select landing zones in which we anticipate little if any immediate resistance. It is not pleasant to consider the damage which even a few unexpected machine guns or Red-eye-type, one-man antiaircraft missiles might inflict in the early stages of a chopper landing. To say nothing of well directed antiaircraft or field artillery fire—which could be a calamity! Unless enemy batteries which can bear on the landing zone are reduced, it will be an unhealthy venture.

Our landing zones must be selected with care, and our air and gunfire preparation of the objective area must be as complete as possible. The approach routes and landing zones demand particular attention. Smoke cover appears to offer considerable promise. In mastering such supporting arms techniques we still have a long way to go. Their importance cannot be overemphasized. We certainly will be best off when we land where the enemy is not—or where he was before he was clobbered.

Foreknowledge

About 500 B.C. Gen Sun Tzu observed, "What enables the good general to strike and conquer and to achieve things beyond the reach of ordinary man is foreknowledge." His remark has worn well.

In this regard our use of pathfinders should be reevaluated. Their job must be more than just terminal guidance for the assault helicopters and initial ground orientation for

the assault troops. Either the pathfinders, or some other outfit, must be primarily concerned with ground reconnaissance prior to the main landing. They must detect the location of any enemy in position to bring close fire on the landing. If such enemy elements cannot be destroyed, and if they jeopardize the landing, an alternate zone, one known to offer less hazard, must be directed. Vertical landings require a high order of foreknowledge.

The nine-man pathfinder jump squad is on the right track, but it does not appear to be the complete answer to the problem. A large unit, of platoon size or better, may be necessary to do the job, particularly when any enemy clean-up is required. Its mission will be similar to that of an advance guard. It will develop and overcome light resistance and, in any case, warn the main body of trouble. These pathfinder-reconnaissance elements could reach the area by rubber boat techniques, helicopter, parachute, or by a combination of ways. No single method is likely always to be the best answer. They probably should land directly in the landing zone only on rare occasions, and then under cover of darkness, if we are to deceive the enemy as to the point of landing. Their hour of landing will naturally depend on the situation, but it must allow plenty of time to do the job. It will not always be a matter of only an hour or two. It seems most desirable that within certain limits these elements be counted on to ring the bell for helicopter hour. Perhaps the first assault waves should not leave the deck until they have a green light from their agents ashore and fully understand what to expect on landing.

Perhaps helicopter landings must combine the cautious tactics of a meeting engagement with the overwhelming shock characteristic of beach assault. A judicious blending of the two seems most likely to insure success in a vertical landing.

The Resupply Question

The problems of helicopter assault are by no means over when the force has been successfully landed. Logistically, at least, they have just begun. The resupply root along which its sap of life will flow is critical.

In an analysis of his El Alamein troubles, Rommel makes this point, "The first essential condition for an army to stand the strain of battle is an adequate stock of weapons, petrol, and ammunition. In fact, the battle is fought and decided by the Quartermasters before the shooting begins." Long before Rommel's time, Frederick the Great urged his generals to understand that, "the foundation of an army is the belly." Beans and bullets are always a problem.

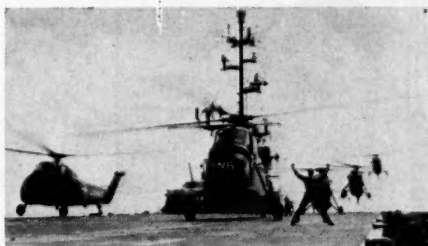
Supply is always important. Particularly in vertical envelopment it can influence morale. A fear that they may be deserted must never concern the helicopter assault force. They will have enough to worry about without that bugbear.

In planning for resupply the G-3 and G-4 must see eye to eye. Once we land the force it can't just hang there. A required percentage of the helicopters must be readily available for routine as well as emergency resupply, even at the expense of other troop lifts. The G-3 can't wheel and deal the G-4 out of business. The Commander must fully appreciate both sides of the story and command accordingly.

Passing a predetermined number of helicopters to shore party support immediately after the ship-to-shore movement may be the best solution to the problem. The shore party has always needed trucks; in this case it undoubtedly will always need choppers. Plans must provide the necessary means. It also seems desirable that prearrangements routinely include a capability for emergency parachute delivery of beans, bullets and other essentials. The task of heli-borne troops and link-up forces may not always prove simple. The enemy reaction may be more violent than expected. If resupply by helicopter doesn't work at first, an emergency means must be ready for use until a supporting arms coup de grace eliminates the interference. A ready source of para-

chute resupply, even, if possible, from carrier aircraft, could provide a rapid answer.

Resupply of helicopter units also is of utmost importance. Of major implication is the requirement for fuel. Helicopters have a huge thirst; in the case of the HUS on the order of 80 gallons per flying hour, for the HR2S, 200 gallons. Just as in tank operations, the availability, or lack, of fuel may prove decisive in helicopter operations. But the problems incident to resupply of fuel during extended combat operations ashore are too many and complicated to discuss here. Suffice it to say that the battle may sometimes go to the side best able to feed, and so to



fly, its helicopters. This is especially true in the pursuit, an operation for which helicopter transport seems particularly suited.

In Summary

Will the concept of vertical envelopment work? Certainly—but for many the image of such operations is out of focus. The cliché "all helicopter assault" may have led to these misconceptions. It is a dangerous misnomer.

We will never be completely heli-borne when we have a real fight to face. Only a fraction of our assault force is likely to land vertically. Nor will the helicopter landing often be in the nature of an assault, as the word is generally understood. Rather it will be an airborne approach march to a point from which the ground force may enter combat.

Unfortunately, our haughty helicopters have a serious limitation—

vulnerability—and they are sure to be a prime enemy target. We must face up to these facts and stop dashing in where we should fear to tread. We must not flounce this new capability or employ it with reckless disregard of the enemy.

A very high degree of air superiority is a prerequisite to any vertical envelopment. In a general (atomic) war, we can easily eliminate enemy ground resistance by nuclear preparation. But limited (non-atomic) wars are far more likely to occur. In either event we will not land vertically in enemy territory until we are reasonably certain the landing will be essentially unopposed—either because the enemy is not there, or because our fire support preparation and our reconnaissance elements have done so thorough a job that little immediate resistance is anticipated. The stage will be set carefully.

Earth-bound forces will continue to provide the sinews of ground combat. Helicopter landings will provide a valuable addition to our fighting strength. Employment of the entire force must be governed by the principle of mass, applied at the right place and time. We must continue to beware of piecemeal commitment of force—of getting our limited heli-borne component too far out on the limb. We should husband our helicopters for employment in the logistical or tactical coup de grace.

In the final analysis it is people who will make the concept work—the people working on it now, and the people who will benefit from it in combat. There is no place for either brash optimism or defeatism in our efforts towards development of tactics and techniques for vertical landings. We must fully appreciate both our capabilities and our limitations.

Our eggs are in the basket. Assuring that they are grade A is the Corps' most compelling air-ground task.

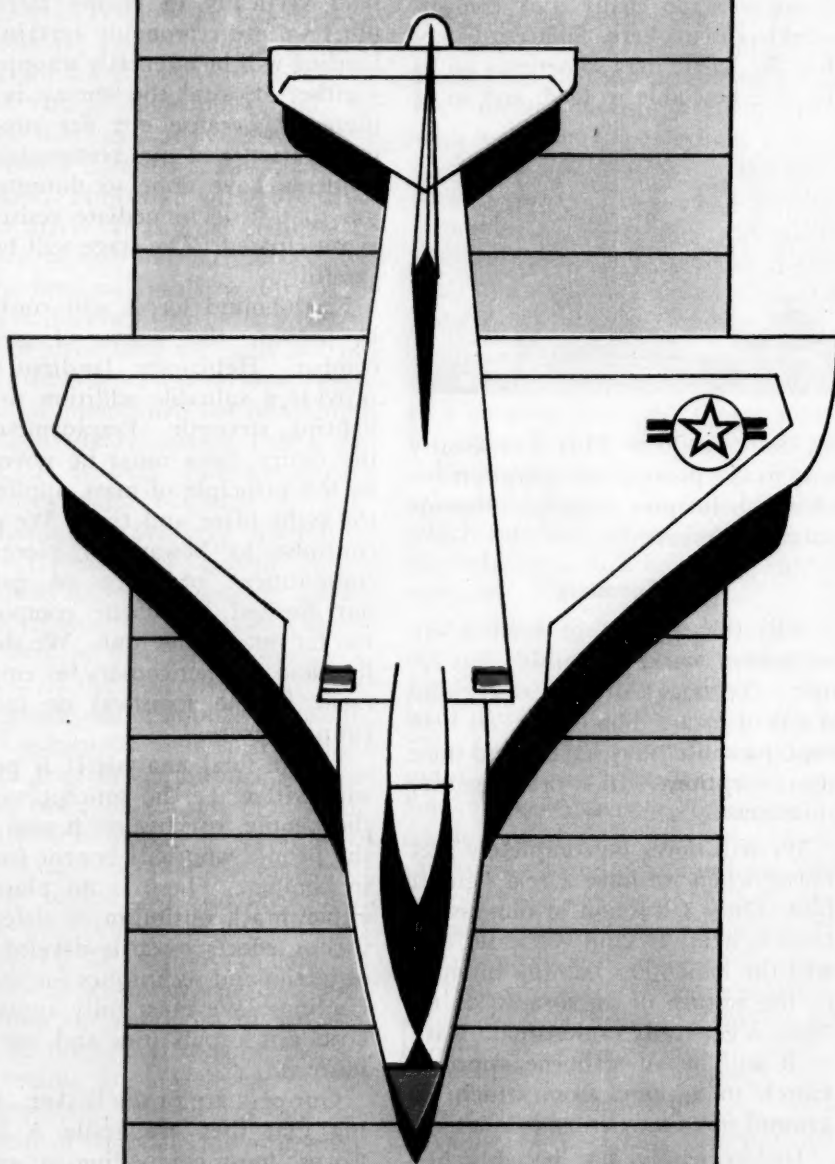
USMC

Now Lower Your Other One

☛ HALFWAY DOWN THE FIRST RANK the inspecting officer coldly eyed the cant of a brand new second lieutenant's rifle. "All right, mister," he roared. "Lower your butt." Completely bewildered, the young man obliged. He bent his knees a few inches.

\$15.00 to Capt Dwight E. Howard

SELF—Mobility a Reality



By Capt N. E. Canfield and
Capt C. S. Esterline

SELF operations are comparable to carrier operations. One big difference, often overlooked: the narrow 60' width of SELF. The authors urge constant training, improved techniques.

✿ DURING THE MONTH OF MARCH 1960, the short expeditionary landing field (SELF) changed from a future prospect discussed in Advance Base Problems, to an operational reality. Actual operations from a field at Heng-Ch'un, Taiwan, during Operation BLUE STAR showed that Marine tactical aviation now has a significant capability unique among aviation units in the world. This gain didn't come without some disadvantages. These will have to be appreciated both by squadrons preparing for operations from the short field, and units assigned the task of construction.

The development of this technique frees Marine tactical air from dependency on established airfields ashore in amphibious operations. Abandoned WWII fields, small commercial fields, and almost any open level area with good soil stability are now potential air bases. First-line Marine Corps fighters and attack aircraft can now be immediately available within the Landing Force area of operations. The time lag from scramble to on station has been cut to a few minutes. Powerful air striking forces can be emplaced in underdeveloped areas as the conditions of the cold war de-

mand. This important new tool of military technology is the outgrowth of several devices of recent development.

The field itself consists of aluminum planks two feet wide and twelve feet long. The planks weigh 160 pounds each and are solid-surfaced to prevent soil base erosion from jet blast. During Operation BLUE STAR a company of the 7th Eng Bn with the help of MABS-12 laid a strip 3400 feet long and 60 feet wide in a little over 50 hours.

To operate from a field of this length, mobile arresting gear is used. Called MOREST, this equipment consists of two hydraulic ram engines (one on each side of the runway) and two cables. These cables are supported by yielding elements to a height of four to six inches above the runway to facilitate arrestment. Despite a longer runout than on an aircraft carrier, the arresting shock is much the same due to a higher relative speed at arrestment. Since MOREST is emplaced midway down the runway, an aircraft missing the wire can still add power and get airborne again safely. Two units may be used in tandem to reduce the chance of missed arrestment due to hook skip.

A standard portable mirror landing system is installed on the end of the runway and a glide slope of $2\frac{1}{2}$ - $3\frac{1}{2}$ degrees is used. Due to the critical limitations of airspeed and lineup at touchdown (especially in F4D's and F8U's), a Landing Signal Officer

(LSO) monitors the approaches as on a carrier. He controls the aircraft by means of radio and the wave off lights on the mirror.

Adequate taxiways and parking areas must be provided as the usual soil base won't support the weight of a jet fighter. An additional feature which was used at other bases throughout BLUE STAR is the tactical airfield fuel dispensing system. With this system and proper ground handling equipment the capacity of a landing strip is greatly increased.

Earth revetments should be built as quickly as possible for tactical dispersion. Limited planking initially available for ramps and taxiways will cause serious dust problems. Engine damage due to flying rocks will be present until the parking areas are adequately covered.

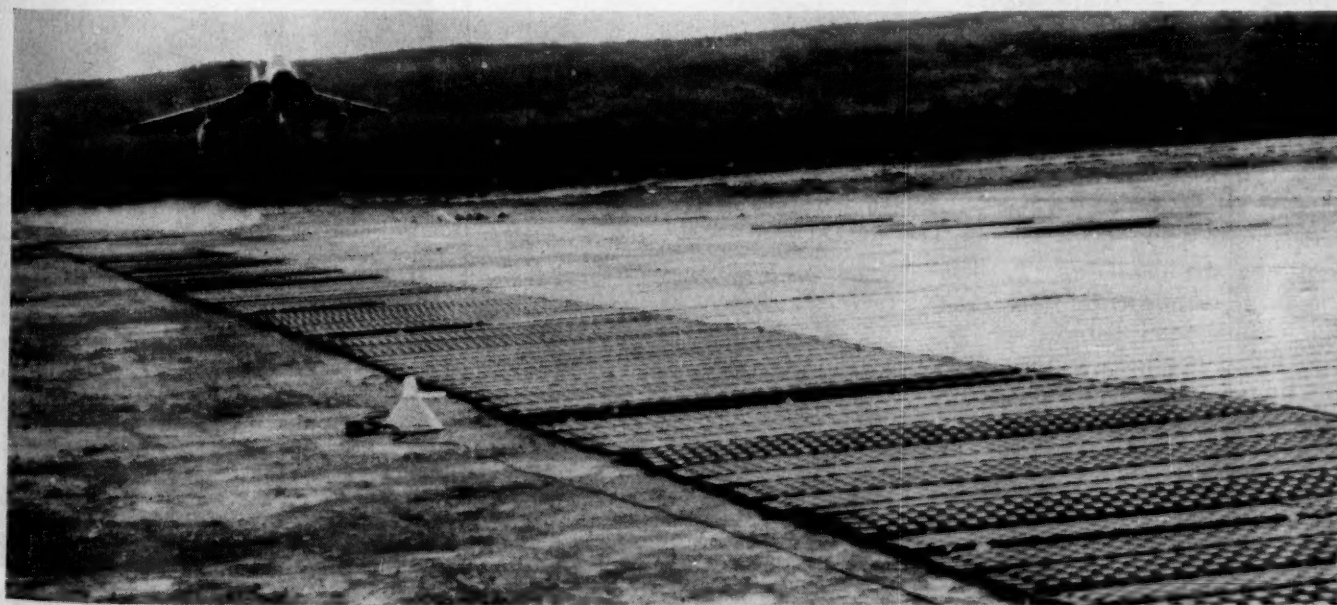
The takeoffs for F4D and F8U's are made with afterburners. Prior to OPERATION BLUE STAR considerable practice on short field takeoffs was conducted by the fighter squadrons in Marine Aircraft Group-11. In the case of the F4D (and F8U with slight variation) a runup to close to maximum power with the brakes locked was made on the extreme end of the runway. In the actual use of a 3400 foot strip, little encouragement is needed to have the pilot begin his takeoff run with the aircraft tailpipe over the edge of the planking. As the brakes are released the pilot goes to full power and lights the afterburner.

As the F4D reaches 132 knots the

stick is eased back and the aircraft rotated to the takeoff attitude, flying off the deck at about 150 knots. Obstacles beyond the end of the runway shouldn't present a serious problem, as once the afterburner equipped aircraft becomes airborne, a steep angle of climb is readily held.

In the case of the A4D, a non-afterburner aircraft, JATO bottles are used for full-load takeoff. The A4D's are able to use the first part of the takeoff roll for a good check of the engine instruments prior to igniting the JATO. If the engine instruments indicate an abort advisable, the throttle goes to idle and the hook down. Naturally an immediate abort is necessary if the JATO fails to ignite.

Before going into the landing phase of operations, a discussion on the site and its limitations is advisable, as many factors in landing are influenced by the "terrain and situation." When the field location was announced, the squadron LSO took a contour map and traced the landing pattern on it. The problem here is terrain clearance throughout the approach and at Heng-Ch'un some problems were encountered. The F4D landing pattern starts 6000' abeam the end of the runway at 550' altitude above field altitude for a carrier type approach. This can be modified to 1000' altitude as is used in a normal landing. The glide slope can best be visualized as a line in space, beginning at the mirror near the end of the runway, and



Flying at 135 knots, making touchdown 125 feet from end of runway requires deft handling.



Capt Canfield graduated from UCLA in 1954 with a BA in Geography and received a regular commission through the NROTC Program. He was graduated from the 4th Basic Class, 1954, and served as a Platoon Commander in 1stBn, 1st Marines, and Marine Corps Test Unit #1. After attending flight school from January 1957 through July 1958, he was designated a Naval Aviator. Now with VMF(AW)-542, he is Administrative Officer and Assistant LSO.

sloping upward 3 degrees to the horizontal. It is formed by source lights 150 feet in front of the mirror focused on its concave surface. A yellow beam is thereby reflected into space at an angle of 3 degrees (or whatever angle of the mirror tilt is preset). The reference line is formed by a row of green datum lights on each side of the mirror. If the pilot sees a centered "meat ball" he is on glide slope. If the "meat ball" is high the aircraft is above slope, low the aircraft is low. Regardless of the initial altitude used, the aircraft must end up at 450 feet between the 90 degree and 45 degree positions to intercept the glide slope. Therefore, any rise in

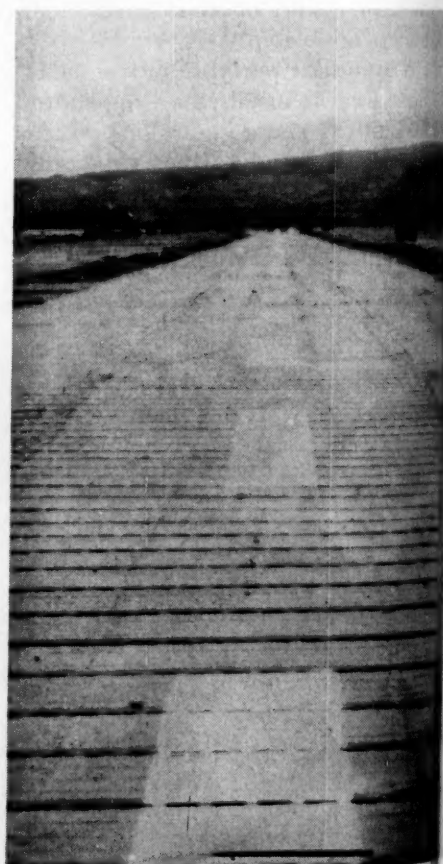
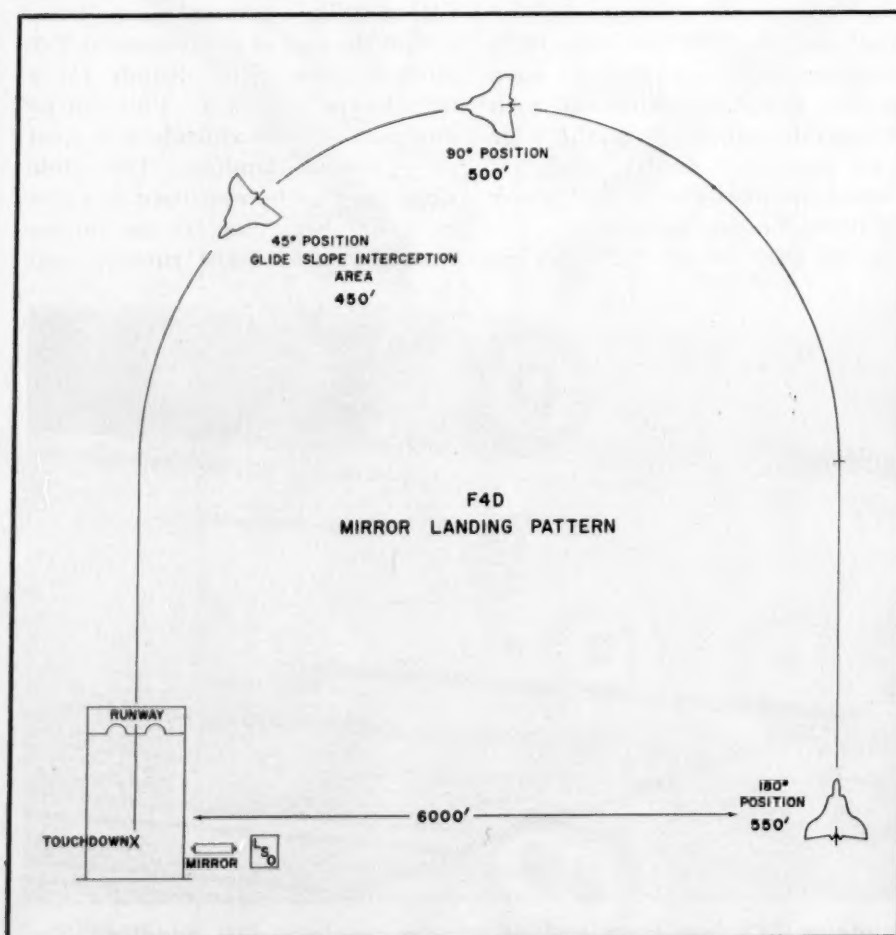
terrain over 400' between the end of the runway and a point 1½ miles out prevents a smooth even come-down in the approach. With a swept wing jet, flying at 130-135 knots on final, trying to touch down 125 feet from the end of the runway, a smooth comedown is mandatory.

The field at Heng-Ch'un had mountains at the upwind end which, fortunately combined with strong prevailing winds, made it a one direction airfield. Any large variations in wind direction would have made the field useless until the wind changed to down the runway. The approach was over terrain sloping upward to 700' above the runway about 2 miles out. While this situa-

tion wasn't a major obstacle, it required alertness on the part of the pilot, and LSO, to avoid getting deep at the 90 degree position with a possible disaster resulting.

In future operations an attempt at operating from a two-way SELF may be possible. Level terrain and shifting winds would permit and require this type of operation. Operating from the field in all weather conditions, with a MATCU installed for RAPCON (Radar Approach Control) penetrations and GCA finals, would be more feasible without terrain clearance problems.

Certain basic prerequisites of training and experience must be acquired by a squadron before they can conduct operations from the short field. Marine All Weather Fighter Squadron-542, one of the participating squadrons, had been carrier qualified and requalified during the preceding nine months. This entailed an average of 35 Field Mirror Landing Practice (FMLP) Flights per pilot before the initial qualification cruise. Each period of FMLP's averages six to eight landings per pilot. On the qualification cruise, each pilot made at least 10

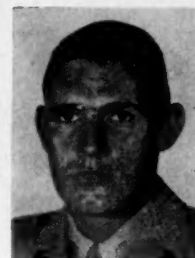


Field made of aluminum planks 2 by 6

carrier landings and added up to seven more on the requalification cruise later. Additionally, 542's pilots had ten FMLP periods before requal and three to four each month after the second cruise. With this much mirror work the pilots were at home in the landing pattern and needed less LSO assistance. However, all short field landings will have to be monitored by an LSO. The background in precision landings of the average squadron will not usually be so extensive. The same training is required for a squadron to be ready for carrier or short field operations. Twenty to twenty-five FMLP periods should be enough for an initial short field capability, while a carrier-qualified squadron needs little if any further preparations. Landing an aircraft on speed, properly lined up, with correct angle of attack and sink rate is a skill acquired through hard work and practice. A program for short field qualification for all tactical squadrons, similar to carrier qualifications, would give the Marine Corps a formidable on hand capability.

While speed control on final has

Capt Esterline graduated from North East Missouri State Teachers College with a BA in Political Science. He received a reserve commission from the 3d Basic Class, 1955, in Jan '56. From Feb '56 through Nov '57 he attended flight school. Capt Esterline integrated into the regular Marine Corps in June '57. He has served with VMF(AW)-542 since graduation from flight school. Designated an LSO in Feb '60, he has served as Squadron LSO since 1 Apr '60.

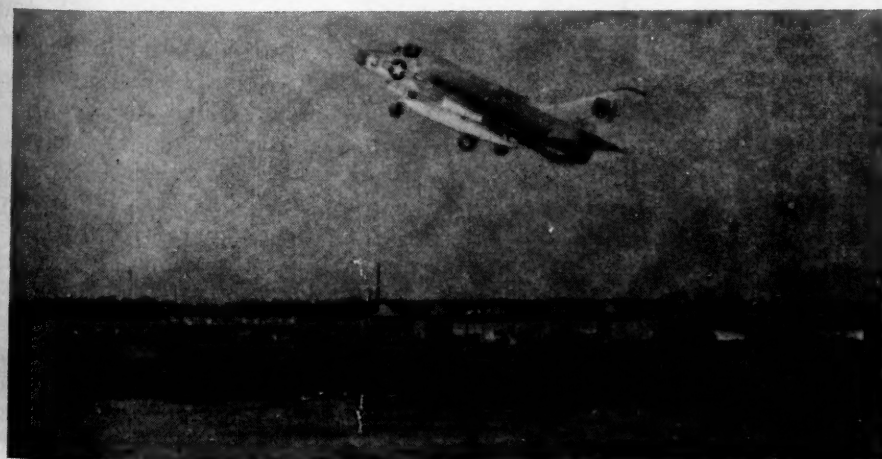
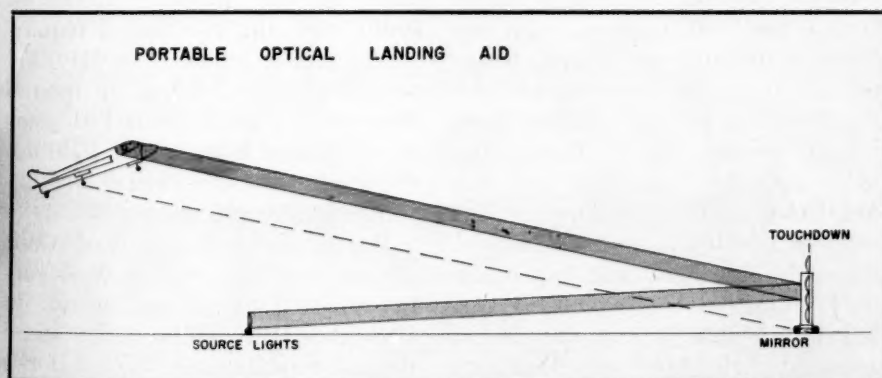


been hammered at again and again as most critical, a second factor equally important should be discussed. The dominant impression VMF(AW)-542 pilots had on first seeing Heng-ch'un from the air was the narrowness of the strip. While the knowledge of the MOREST and its reliability counteracts the short length, the narrowness presents a problem that only the pilot can overcome (with the LSO's advice). Most standard jet runways are 150' in width, usually more. In contrast, the F4D wingspan is 33' 6" or over 1/2 the SELF runway width. With poor line-up on such a narrow strip, the aircraft would never reach the MOREST. As a rule of thumb, the

LSO waved off any approach where both main wheels would touch down on one side of the center line. Constant corrections and attention are required of the pilot to straddle the center line. This problem is increased when any crosswind component exists. The lineup problem was foremost in the minds of the pilots who participated in the operation.

The precision required for short field operation is comparable to what is necessary in carrier operations. For a comparison, the deck of an Essex Class carrier is 105' compared to SELF's 60'. Where the carrier pilots must contend with pitching deck and stack gas turbulence, the SELF pilot will have terrain problems and gusty winds to fight for a critical lineup. Over rough terrain, thermals (updrafts) compound the pilot's problems at the slow airspeed used in the pattern. The rougher the air, the less time the pilot has to concentrate on his lineup and glide slope.

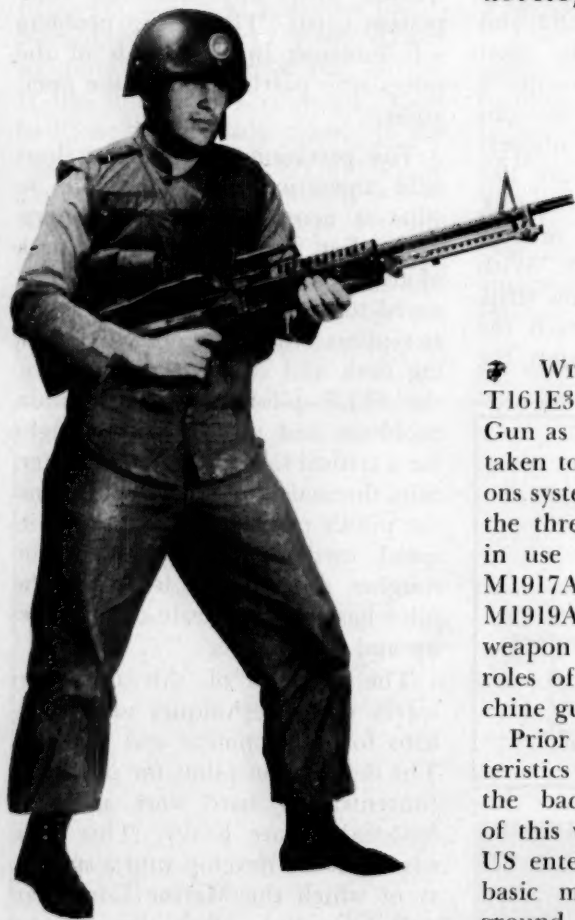
The newness of this operation leaves many techniques and problems for development and solution. The demand on pilots for precision, concentration, hard work and professionalism are heavy. This technique should develop into a specialty of which the Marine Corps can well be proud. With the procurement of equipment for additional fields, more squadrons will be gaining the needed experience. With the capability common to all operational squadrons, Marine infantry need no longer rely on carrier based aircraft for their support after an amphibious landing. Within 2 1/2 to 3 days, Marine jets can be operating from SELF in the objective area. Mobility is the keynote in modern warfare — Marine Corps Aviation now has the mobility. USMC



Afterburners provide steep angle of climb.

YOUR NEW M60 MACHINE GUN

Marines have wanted a lightweight, all-purpose MG for many years. It's coming in the M-60. The author discusses development, characteristics and employment.



By Capt Thomas C. Edwards

✱ WITH THE ADOPTION OF THE T161E3 General Purpose Machine Gun as the M60, a gigantic step was taken to simplify our infantry weapons system. In one sweeping advance the three .30 caliber machine guns in use by the Armed Forces, the M1917A1, the M1919A4, and the M1919A6, have been replaced by one weapon which can perform all the roles of both light and heavy machine guns.

Prior to delving into the characteristics of the M60, let's look into the background and development of this versatile weapon. When the US entered WWII, there were two basic machine guns available for ground use: the water cooled M1917A1 with its cumbersome M-74 tripod and the M1919A4 with its M2 tripod. While these two weapons were accurate, rugged, and reliable, they were heavy and complicated. It took too long to change barrels and then adjust headspace. Their weight was excessive, ranging from 32 to 42 pounds, with mounts ranging from 14 to 53 pounds. The Army Ordnance Corps looked for a solution to this problem for a number of years, attempting to develop

a true light machine gun. However, none of the weapons developed could meet the established requirements. As a result, the M1919A6 was adopted in 1943 as an interim weapon. Although it lacked many of the desired features of a light machine gun, it was rugged and dependable.

During the closing years of WWII the need for improved machine guns for infantry use was recognized. In 1945 the Army Field Forces stated that a requirement existed for a lightweight general purpose machine gun to replace all the .30 caliber machine guns employed in ground roles. This requirement gave new emphasis and direction to Army Ordnance for the development of the desired weapon. In brief, this requirement called for a weapon with battlefield performance equaling or surpassing that of the three .30 caliber ground machine guns then in use.

During 1947, extensive studies were made of all types of foreign and domestic weapons. As a result experimental weapons were built by various companies. The prototype of the M60, known as the T52, was

designed by the Bridge Tool and Die Works of Philadelphia, Pennsylvania. Without previous weapons experience, but through a thorough and extensive study and evaluation of various weapons, the company produced a prototype machine gun superior to those of well known, established arms companies. The T52 was based primarily upon the general design of the German FG 42 automatic rifle. It was fitted with the belt feed mechanism of the German MG 42 machine gun and used an operating system basically identical to that used in the Lewis gun of WWI. This weapon possessed features which had been known and available for many years, but this was the first time all were incorporated into one weapon. All available facilities were concentrated on further development of this weapon. In 1951, the final model, known as the T52E5, was completed.

Work on the T52E5 moved fast to ensure that the weapon could be mass produced. In addition, it was decided to rechamber the weapon to fire the new 7.62mm NATO cartridge which at that time was in the process of being adopted. For this

Chart I				
	M60	M1917A1	M1919A4	M1919A6
Gun	23	33 (w/o water) 41 (w/water)	31	32.5
Pintle elev. & trav. mech.	NA	NA	4.75	4.75
Mount	19.5	29.5	14	14
Totals				
Bipod mounted	23	NA	NA	32.5
Tripod mounted	42.5	625 (w/o water) 70.5 (w/water)	49.75	50.75

task, Army Ordnance turned to Inland Manufacturing Division of General Motors. The T52E5 proved to be capable of mass production. Limited quantities of the weapon, now designated as the T161 series, were produced for engineering and service tests. During the initial engineering and service tests, deficiencies were corrected. The final version of the weapon, the T161E5, was selected for adoption as standard. This is the M60.

The M60 in its adopted form is a gas operated, belt fed, air cooled machine gun chambered for the 7.62mm NATO cartridge. The rate of fire is approximately 550 rounds

per minute. The feed mechanism uses a link belt made of push-through type disintegrating links in which the bolt in its forward movement drives a round through the link and downward directly into the chamber. The weapon is equipped with a pistol grip, sling swivels, a tripod mounting, and bipod which is an integral part of the barrel assembly. Because of its design and versatility, the weapon may be used in diverse missions. It can be fired from bipod or tripod. At close ranges effective results can be obtained with either hip or shoulder fire. In addition, 100-round canvas magazines are available which will



Weapon's pintle-type, single-mounting puts it into action fast.



M-60 machine gun features pistol grip, sling swivels, built-in bipod.

permit the weapon to be carried loaded, cocked, and ready for firing. Chart I sets forth the weight characteristics of the M60 machine gun-mount combination in comparison to our present Browning machine gun-mount combinations.

The M60 has many features which make it an excellent automatic weapon. The primary and most important feature is that the shoulder stock and recoiling parts are in a straight line with the centerline of the barrel. This reduces the tendency of the weapon to climb and adds to its stability. This is of special importance since the M60 is designed to be fired from both tripod and bipod. It fires from an open bolt thereby eliminating the possibility of cook-offs. This also permits air to circulate through the barrel between bursts and speeds up cooling the barrel. The quick-change barrel feature permits the changing of barrels in approximately five seconds. A rotary locking type bolt eliminates the problem of adjusting headspace whenever a barrel is changed. The gas system of the weapon is of the gas cut-off and expansion type in which a constant amount of gas is bled off from the barrel after each shot. This permits the shooter to maintain a more uniform rate of fire.

The sustained fire capability of the M60 is far superior to our present Browning guns. This capabil-

ity is primarily dependent upon the barrel life of the weapon. The barrels used in the M60 machine gun are equipped with a stellite liner extending from the chamber to a point one third up the length of the barrel. This liner, plus the fact that the ball powder used in the NATO cartridge is less corrosive to a barrel than the powder used in the standard .30 caliber cartridge, adds greatly to the barrel life and sustained fire capabilities of the gun. When firing sustained fire with one barrel, the weapon may be fired at a rate of 125 rounds-per-minute for 40 minutes, or 250 rounds-per-minute for three minutes with no appreciable loss of accuracy. When two barrels are used (changed every 500 rounds), the weapon may be fired at a rate of 125 rounds-per-minute for 60 minutes with the same results.

Sights of the M60 machine gun consist of an elevated blade type front sight and a leaf type rear sight. As the illustration shows, the front sight blade is raised a considerable distance above the barrel. This elevation is caused by the design of the gun assembly (receiver group) and raises the line of sight of the weapon above the barrel to prevent heat waves, generated during firing, from interfering with the gunner's sight picture. The rear sight is adjustable in both elevation and lateral movement. It has an adjustable ramp with a square notch that is

provided with both quick and fine adjustment features. In addition, it is equipped with a vertical adjusting plate for zeroing the weapon, calibrated up to a range of 1200 yards.

While these sights appear to be crude in comparison to the sights on our present machine guns, and undoubtedly bring cries of anguish from our professional machine gunners, it must be emphasized that they are strictly direct fire combat type sights. The design of this rear sight is the result of many years of testing which began shortly after WWII. Basically, these tests revealed these facts: effective control of machine gun fire, even by an exceptionally well qualified observer using field glasses, is extremely difficult beyond the burn out point of the tracer. As 1200 yards is the approximate burn out point of the tracer, this is the maximum sight setting placed upon the sight. Firing beyond 1200 yards requires firing tables and a clinometer. Targets can be picked up more rapidly by a gunner using a square type notch on the rear sight and in conjunction with a blade type front sight. Machine gun sights are used primarily for laying the initial burst on or near the target. The fire is then brought on the target by adjustment of the elevating and traversing mechanism if tripod-mounted or by the use of "Kentucky windage" if the weapon is bipod-

mounted. These are proven facts; the rear sight for the M60 machine gun was designed accordingly.

Present plans for the packaging of ammunition for the M60 machine gun calls for 300 rounds per box. The packaged weight of the 300 rounds of 7.62mm NATO ammunition for the M60 will weigh less than our present 250 round .30 caliber ammunition cans. The ammunition will be packed in 100-round containers with three 100-round containers per can. This type of packaging permits the use of both 300-round belts and 100-round containers for use with the canvas magazines for the weapon. If 300-round belts are needed, only a few seconds are required to link the 100-round belts together. For 100-round magazines, an entire 100-round container is placed inside the canvas magazine.

Each 100-round container has bandolier type straps around its sides. When the magazines are used, the ammunition carrier can place one 100-round container in a magazine, sling the other two 100-round containers on his body by use of the bandolier straps, and discard the empty can. If 300-round belts are being used and the weapon ceases firing for displacement purposes after 200 or more rounds have been fired, the assistant gunner can pull the container containing the remaining rounds from the can, sling it on his body and discard the can. This method of packaging permits taking full advantage of the weapon's versatility. It will be particularly useful in raids, combat in built up areas, patrolling, and other tactical situations. The magazine makes the weapon ready for action in a moment's notice.

The present T/O and number of machine gun sections in the rifle company weapons platoon is sufficient. But because of the weapon's capabilities, the number of ammunition carriers per machine gun squad should be increased from two to three. The present ammunition load for the M1919A4 machine gun is 1000 rounds. When the M60 machine gun is phased in, this load will automatically increase to 1200 rounds. If an additional ammunition carrier is added to the squad, the ammunition immediately avail-

M-60—Testing and Training

The built-in bipod satisfies most requirements for firing the M-60. A tripod is needed, too, offers these advantages:

- allows accurate, rapidly adjusted fire along a given line or into a given area.
- reduces human error in firing—excitement or fatigue.
- permits small dispersion, close grouping of fire.
- permits *limited* overhead fire without danger to friendly troops.

Two important factors were involved in selecting the M-122 tripod: cost and weight. The M-122 weighs 19½ pounds. Two other mounts tested, M-91 (a new design) and M-74 (standard mount for the old water-cooled M-1917 gun) weigh 25 pounds. Since the M-122 is already available in quantity (it's a modified M-2, standard mount for the M-1919A4 gun) procurement costs are low. In order to take the M-60, a slight modification was necessary. Trigger assembly on the M-60 is located farther forward than on the old gun. Clearance was needed. It was provided by adding an extension to the tripod's elevating/traversing mechanism. Some stability was lost. Offsetting this: M-122 has pinless design, allows gun to be quickly mounted, dismounted.



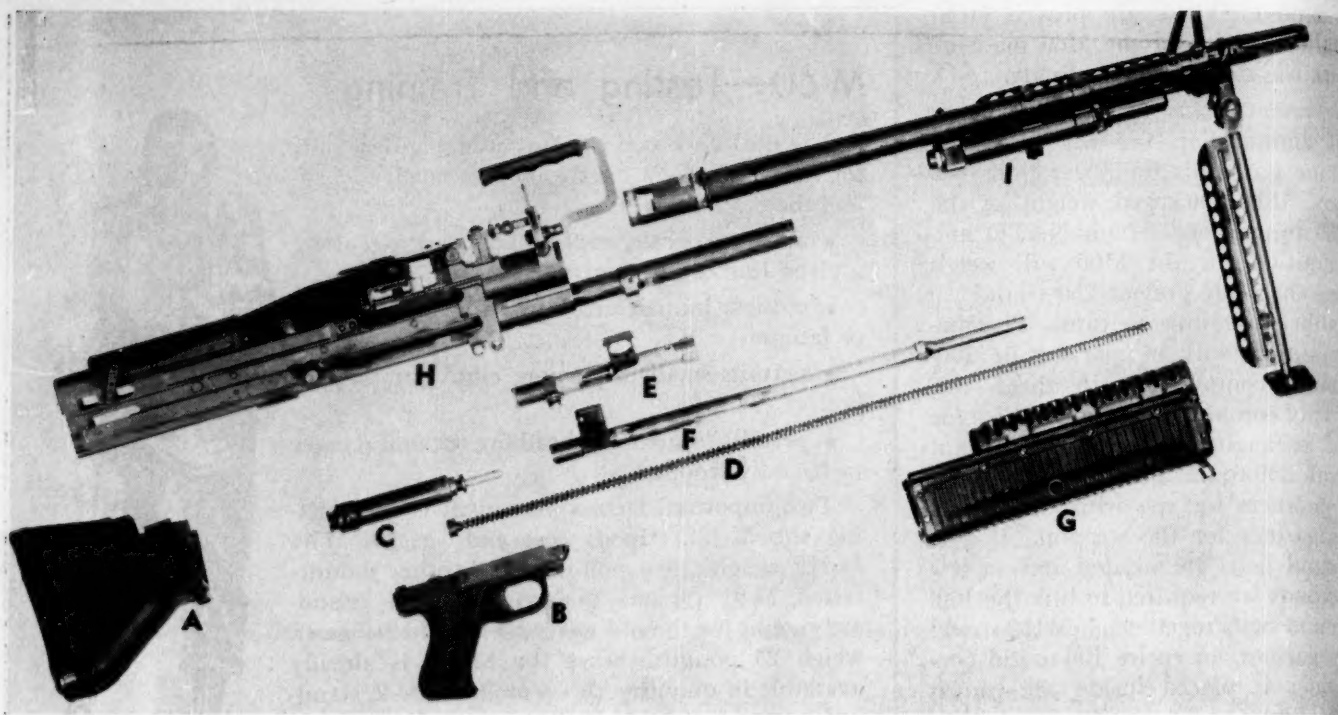
Field Tests

Quantico's SDT ran extensive tests with the M-60 in competition with the M-1919A4, BAR, Tommy Gun. Some of their observations, findings and suggestions:

- Gunners using bipod found it much easier to shift gun instead of their bodies to engage new targets.
- M-60 makes more noise, has less recoil.
- Bipod mount adds speed in putting M-60 into action. Average time: 12 seconds. It took ten seconds longer for M-1919A4.
- In laying on new target requiring 300-yard shift in range, 384 mils in azimuth, M-60 beat M-1919A4 by nearly 11 seconds.
- Landing net test. Lashed over the pack, M-60 handled easier than BAR in ascending, descending. How it's lashed is important. Recommended: Avoid lashing with muzzle elevated. Operating rod handle and bipod feet dig into the back. A better way: See drawing.
- M-60 is an excellent weapon for delivering hip and shoulder fire. In one test, shooters fired at pop-up targets (10) along a 125 yard combat course. Average range was 30 yards, each gunner used 40 rounds. Results:

	Shoulder Fire		Hip Fire	
	Time	Hits	Time	Hits
M-60	86 sec.	7.6	112 sec.	1.8
BAR	85 sec.	6.7	97 sec.	3.0
M3A1	74 sec.	9.8	73 sec.	1.0

Recommended: that individual training with M-60 include firing from hip and shoulder.



A—Butt Stock, B—Trigger Group, C—Buffer, D—Driving Spring and Guide, E—Bolt, F—Operating Rod, G—Hand Guard, H—Receiver, I—Barrel Assembly.

able would increase to 1800 rounds. While this may appear to be excessive, remember that the weapon is more useful in both offensive and defensive operations than were our Browning machine guns.

However, the situations encountered in normal field firing present another picture. The M60 machine gun, when fired from its bipod, is stable enough to effectively engage targets at ranges of about 1200 yards. During field firing at typical combat type targets, better results can be obtained with the weapon bipod-mounted than when it is tripod-mounted. The superiority of bipod over tripod is due to the following:

- The time required to shift a bipod-mounted weapon to a stationary or moving target is less than that

required for a tripod-mounted weapon.

- More hits are obtained with fewer rounds as the gunner sights on each individual target and, by tracer or impact control, comes in more rapidly and accurately on a target than when he uses the elevating and traversing mechanism of the tripod.

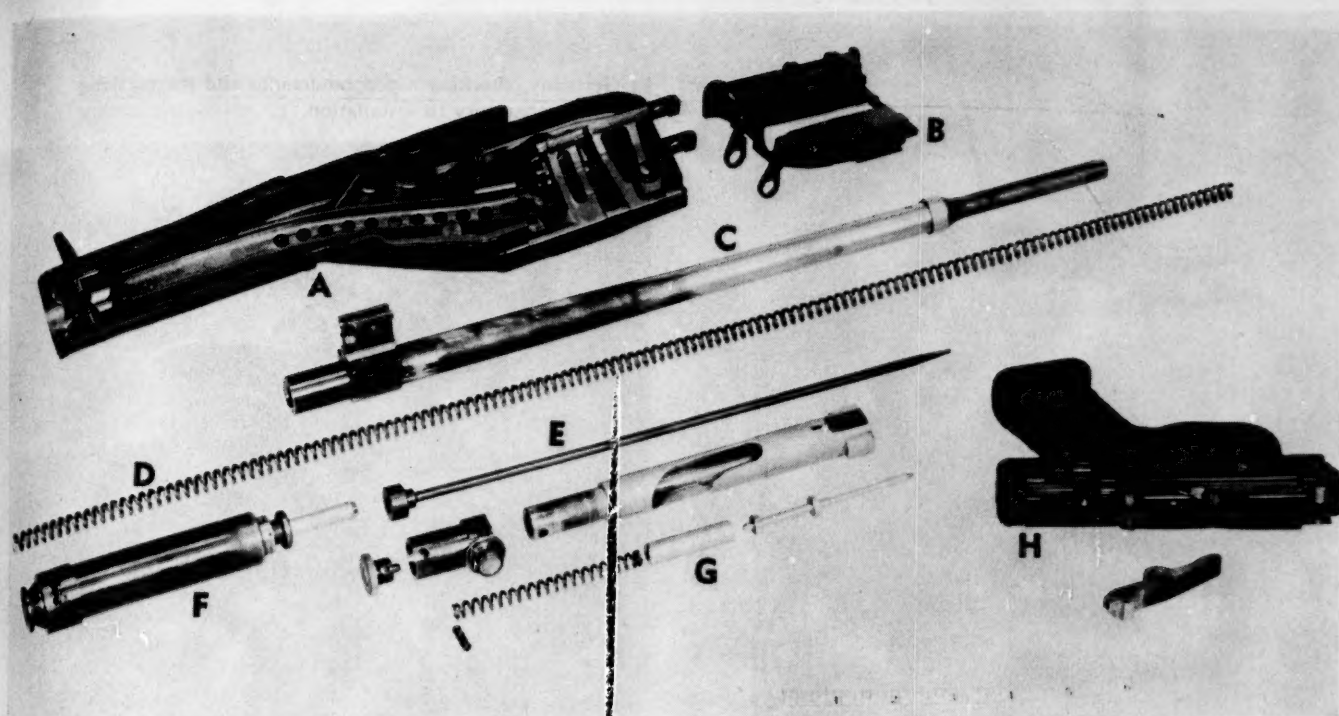
It should also be brought out that the M60 machine gun when bipod-mounted can fire overhead fire under specific conditions. The conditions are: Terrain must be open and rolling to the extent that troop safety is obvious. It is not possible to measure the proper safety angle with the weapon bipod-mounted. The range must not exceed 1200 yards as the effective control of machine gun fire after the burn out

point of the tracer is reached is unreliable. An observer must be present at the gun position to ensure cease fire when attacking troops reach a predetermined safety limit.

There are two schools of thought on the use of the tripod during offensive operations. The first is that weapons may be carried forward with attacking platoons and fired from their bipod mounts during the attack. Upon seizure of the objective, tripods would be brought forward and used in laying-in defensive machine gun fire plans. The second is that the weapon should never be separated from its tripod and that the tripod should be carried along at all times whether it is used or not. Both methods have advantages and disadvantages.

In the first method, the machine gun squad would not be encumbered by the weight of the tripod (19.5 lbs). The assistant gunner could then carry ammunition. This would provide 600 more rounds of ammunition. During the attack, the weapon could be fired from its bipod in assisting in the fire and maneuver of the rifle squads. As the units assaulted the objective, the weapon could be carried along and its firepower added to that of the as-

Capt Edwards, presently the CO, H&S Co, 1stBn, 7th Mar, 1stMarDiv, was commissioned in Jun '51 upon graduation from the US Naval Academy. A weapons collector for 17 years, he has service tested the M60 Machine Gun for about 2 years. Capt Edwards has participated in a 2 month, 4500 mile trip across Greenland Icecap testing special navigational equipment for combat vehicles. Prior to assuming his present duties, he was the OIC of the COBRA missile test project for the troop test conducted by the 1stATBn. He now resides in Oceanside, Calif.



A—Feedcover, B—Feedplate, C—Operating Rod, D—Driving Spring, E—Driving Spring Guide, F—Buffer, G—Bolt Assembly, H—Trigger Group.

saulting elements. In addition, the weapon could be used effectively in any close-in combat that developed by being fired from either the hip or in the offhand position. After securing the objective, the tripods could be brought forward along with the ammunition resupply or by the company headquarters or weapons platoon headquarters. The main disadvantages is that the tripods may not be brought up soon enough to be used in the defensive fire plan. Tripods might not reach their position until after darkness had set in; they could be lost to enemy fire during the movement forward. The tactical situation might even prevent their movement from the company's initial position.

The second method of employment means the tripod would always be in the near vicinity of the gun, ready for immediate use. While this would not preclude using the weapon as set forth above, it would encumber the machine gun squad, replacing some ammunition.

The decision on the tripod will have to be made by the individual troop commander based on the tactical situation and the time and space factors that confront him. One factor is whether or not the machine guns are attached to the rifle platoons or under company control. An example of the varied methods of employment would be holding one section of guns under company control to fire overhead fire from

tripods while the other two sections are attached to the attacking platoons.

There are many questions concerning the use of the M60 machine gun which must remain unanswered until the weapon is actually in the hands of FMF units. Once in the hands of using units, it will meet the rigors of the Marine Corps training program. Many of the questions will be answered. But now is the time for thinking ahead. We need frank and open discussion on the M60. This has long been needed; it's urgent. I hope this article will stimulate Marines to doff their helmets, put on their thinking caps, and contemplate the weapon's future use.

USMC

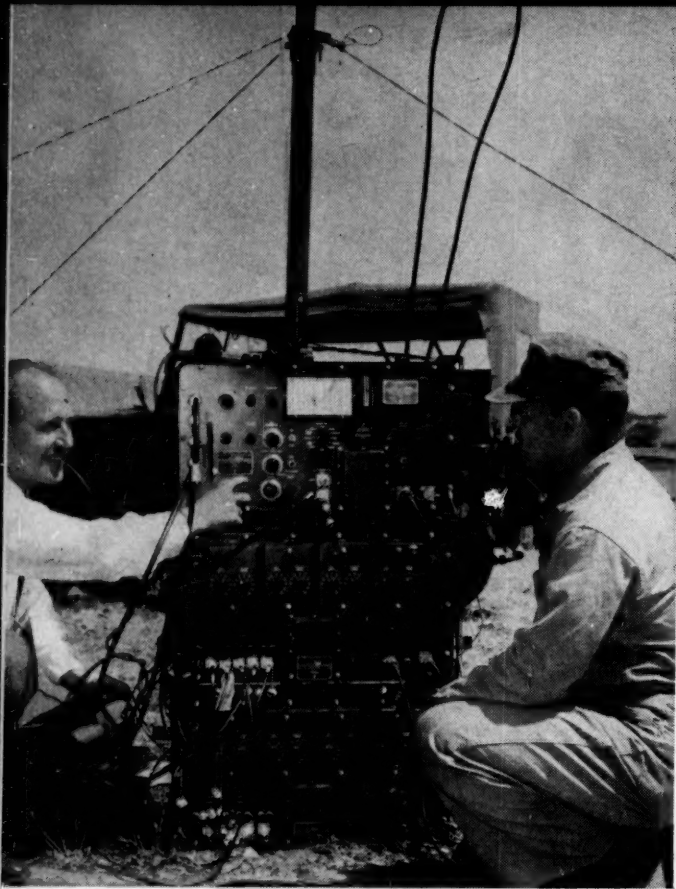
★ ★ ★ ★ One Hamburger Coming Up

☛ ONE MAN IN OUR BARRACKS IN JAPAN had an aversion to trying any new food which might upset his weak stomach, and it was only after much persuasion that we got him to agree to go with two of us for our first Japanese meal.

We chose a typical native restaurant, ordered sukiyaki, the only local dish we had heard of. First, our waitress brought us a platter of cold, raw, oriental vegetables. Our friend, squeamish to begin with, looked pale. A minute later she brought us a tray of red, raw meat. The thought of eating this uncooked foreign conglomeration was apparently too much for him; he offered a sick smile and hurried out the door.

Moments later our waitress returned with the meal's final and most important item: a small charcoal brazier!

\$15.00 to Ronald R. Wren

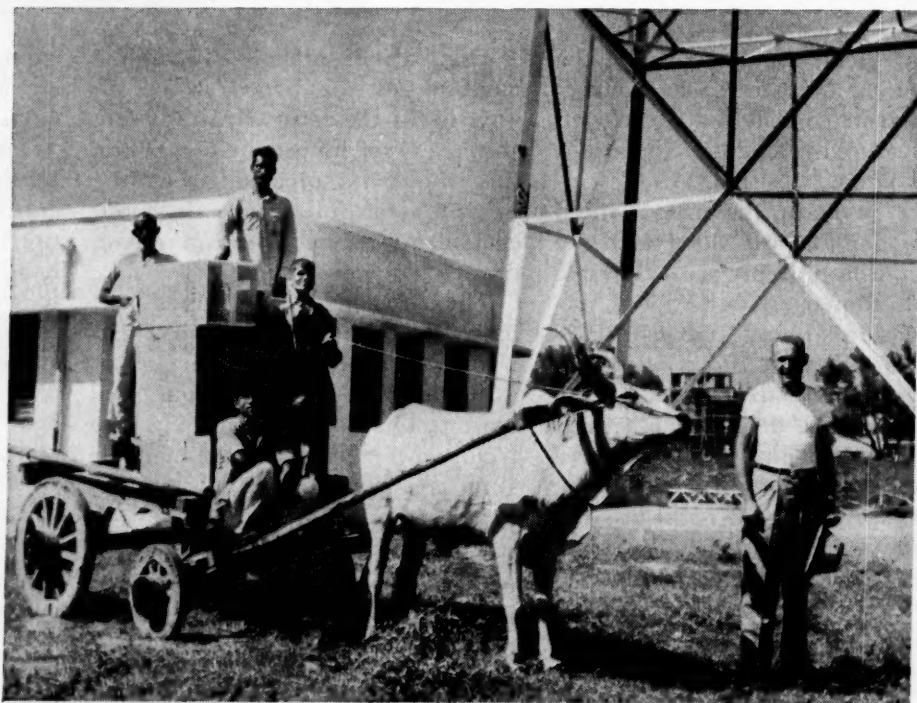


Instructing Marine Corps personnel in portable microwave communications equipment, AN/TRC-27.

In Germany, checking a proposed radar site for masking objects, preparatory to installation.



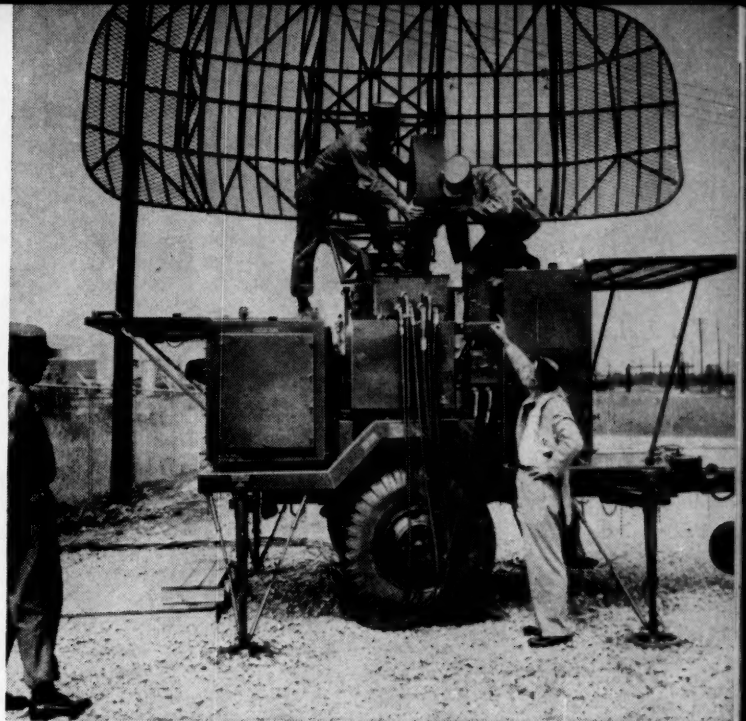
Delivering AN/CPS-9 weather radar parts for the Department of Meteorology, New Delhi, India.



Now in their 18th year of technical assistance to the
Raytheon field engineers, in over 100 loc
work on installation, instruction and maintenance of elec

On-the-spot training in the field on part of the Hawk missile system.

About to board a B-47, this Raytheon field engineer provides technical assistance on electronic countermeasures equipment.



(U.S. Navy photo)



On Midway, Navy technicians receive instructions on adjustment of airborne navigational equipment.

to the Armed Services and government agencies,
00 locations in the United States and overseas,
of electronic equipment.

RAYTHEON COMPANY, WALTHAM, MASS.



EXCELLENCE IN ELECTRONICS

BETTER ARTILLERY SUPPORT NOW



By Col William F. Kramer

✿ WINSTON CHURCHILL STATED IN 1941, "Renown awaits the commander who first in this war, restores artillery to its prime importance on the battlefield." Its prime importance was established. Gen Patton stated flatly, "The artillery won the war." Events in the intervening years emphasize the fact that the maneuvering force with the best overall fire support will win the battles. Exotic missiles now give added fire support. Expensive aircraft add close air support. However, neither of these weapons has been able to eliminate the old standby field artillery—yes, the tube artillery. It continues to make the beach right behind the foot slogging Marine. It is "round-the-clock" ready to give him fire support—no matter what the environment. It will continue to perform in this role in the years ahead.

Any cannon is only part of a weapons system. A field artillery weapons system contains:

- Weaponry
- Transport
- Target Sensors
- Survey Equipment
- Ballistic Correctors
- Communications.

Effort is being made constantly to

improve these elements. What progress has been made to date? The answer: "Considerable." What are prospects for the near future? The answer: "Better than ever."

Ever since WWII, US Army Ordnance has worked to improve tube artillery pieces. Progress has been slow, due to the Korean War and overriding priorities given to missile developments. Nonetheless, there has been significant development in cannon.

In the class of direct support divisional artillery, several choices of cannon, all helicopter transportable, are available. We could have an im-

proved American 105mm howitzer. This weapon could be lightened and its range extended. The new Italian 105mm howitzer is currently undergoing tests by the Marine Corps Landing Force Development Center. It weighs less than 3000 pounds. The Marine Corps' own XM-70, under test, shows promise. It meets ideal requirements of light weight and long range. If forced into standardization tomorrow for mobilization, the new Marine Corps direct support artillery piece adopted would be a far more effective and flexible weapon than the Korean vintage 105mm howitzer.



Eight-inch, self-propelled howitzer

In the general support cannon the picture is even brighter. Close to standardization are these new pieces: the 8" Howitzer (SP), 155 mm Gun (SP) and the 175mm Gun (SP). All are mounted on the same series T-236 Chassis. Also currently under test is the 155mm Howitzer T-196 (SP). These weapons will be capable of firing longer ranges. Caliber for caliber they weigh about 40 per cent less than their existing counterparts, thereby contributing to improved trafficability and mobility. Stability in firing position has been greatly improved through the use of lockout cylinders within the suspension system of the carriage.

Improved weapon range capability and improved weapon mobility will permit wider separation of our attacking infantry and more dispersion of artillery units. Even when more widely separated, these artillery units will give better support per square unit of TAOR than was the case in WWII. This is because every caliber of field artillery will be a part of a planned 'Weapons System.'

Prior to the Korean War, a *relative* evaluation of cannon artillery weapons systems had never been made. We gunners should be ashamed to admit it—but it is true. We did not know what was the best artillery weapons system. Today we do know. Hundreds of controlled "shoots" have been made at different target arrays. From empirical data so obtained, the *Relative Effectiveness* of all US tube artillery has been determined. Relative Effectiveness is based on *rate of fire, accuracy and round lethality*. Charts are now available which will tell an Ar-



XM-70 six-shooter—lightweight plus long range

tillery S-3 how many rounds are required from a given field artillery unit to produce a desired effect on a given target. Prior to the printing of these charts, the Artillery S-3 had only his own judgment to use to decide how much artillery to fire. So we not only have better cannon, we also have better knowledge of what cannon and how much ammunition to use on each target.

To find targets out of the visual range of our own gunnery observers has always been and remains today the greatest problem of the field artilleryman. Great efforts are being made by Research and Development

at this time to improve the ground forces target locating capabilities. Radar, infrared, light sensors, sound detectors—all are under continuous investigation.

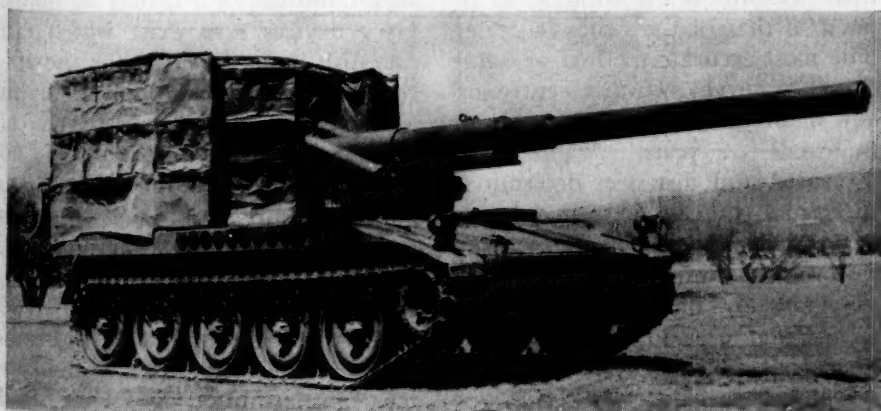
Some improvement had been obtained with radar. The Army has a radar which will quickly locate enemy mortars. It is in the AN/MPQ-4, rugged and dependable, and now in the hands of Army units on the basis of issue of three sets per division. In addition to greater electronic reliability, the AN/MPQ-4 provides these operational advantages over the older AN/MPQ-10.

- First round acquisition. This means an enemy mortar may be located as soon as it fires its first round. Not previously possible with AN/MPQ-10.

- Location time reduced from four or five minutes to 20 seconds.

- Maintenance of a continuous search of the area even when locations are being computed.

The weight and bulk of this radar (6100 lbs.) has made the Marine Corps hesitant to adopt it. However, it does solve the problem of enemy mortar location. The Marine Corps is currently developing the AN/KPQ-1 light weight counter-mortar radar.

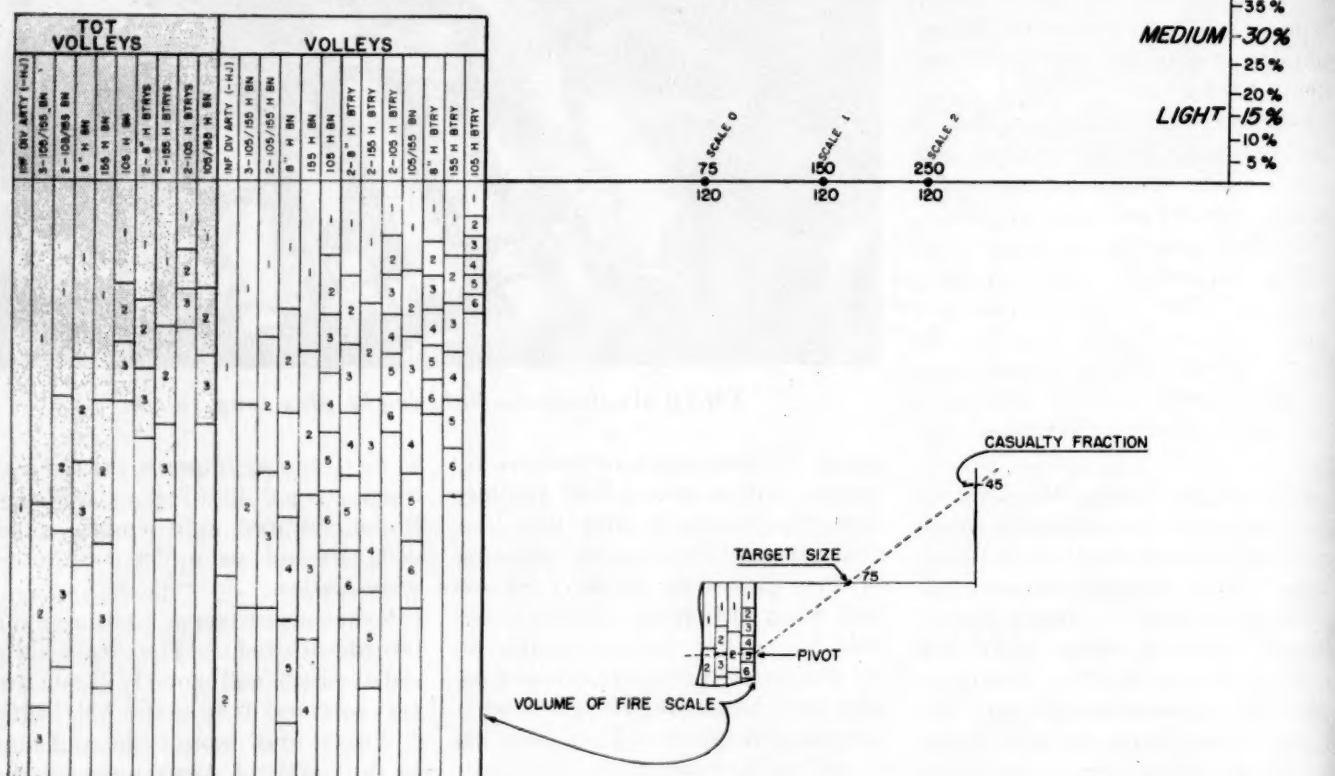


155mm, self-propelled gun mounted on T-236 chassis

SAMPLE PROBLEM

- 1) An observer reports a Scale O target consisting of personnel in the open.
- 2) The S-3 of a 105/155-mm HowBn desires 45% casualties.
- 3) Solution:
 - a Place a straightedge so that it passes through 45% on the casualty fraction and Scale O (75x120) on the target size scales.
 - b Note the point at which the straightedge intersects the volume of fire scale
 - c Read directly to the left to determine the number of volleys from the available systems.

1) 105-mm How Btry	5 volleys
2) 155-mm How Btry	2 volleys
3) 105/155-mm How Bn	2 volleys
4) 105/155-mm How Bn TOT	1 volley
 - d Select the most appropriate system.



Marine Corps Gazette • September 1960



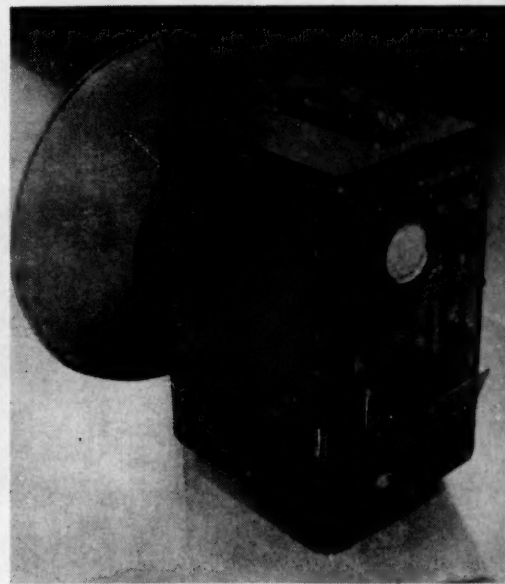
175mm Gun—member of the T 236 chassis family

survey problems in a matter of seconds (without making mistakes in arithmetic). For those situations where the traditional transit, tape and range pole are still required, the new T-16 Theodolite is available to give more accurate angular measurements. Throughout all divisional artillery a survey accuracy expectancy of 1-3000 is easily realizable. Speed and accuracy of survey should continue to improve. A revolution is taking place in Surveying as a Civil Engineering Technique. These new techniques give a "New kind of problem solving ability which allows us to formulate and handle new kinds of problems."¹ So even greater improvements can be expected.

All our efforts to improve accuracy in field artillery in other operating areas are degraded if we do not keep pace with better fire direction techniques. These techniques are on the eve of being revolutionized just as thoroughly as is the case of Civil Engineering Surveying. The instrument which will accomplish this is the general purpose digital computer. These have been in use for commercial and scientific purposes for many years. Only recently has electronic design permitted production of a computer which could be made to function reliably in a field environment. This has been done. The FADAC (Field Artillery Digi-

tal Automatic Computer, has been built. It is now undergoing Army tests. It is the digital successor to the Field Artillery Analogue Computer, the M-15. The M-15 proved to be successful. However, it is limited to solving fire direction problems only, and for only one particular weapon. FADAC is a general purpose computer which needs to be fed only the proper program to solve survey, fire direction and/or planning problems. Thus it will have complete flexibility of employment within division artillery for both cannon and missile type weapons. The prospective gain in accuracy is quantum in nature. For the first time in field artillery, *fire direction first-round accuracy* with predicted fire techniques can be routine.

Because of the calculating ability of the computer the present day averaged and inaccurate "weighted" meteorological (Met) message need no longer be used. An "unweighted" met message will be programmed into the machine. An unweighted met message is one in which the true



Tellurometer in use by USMC

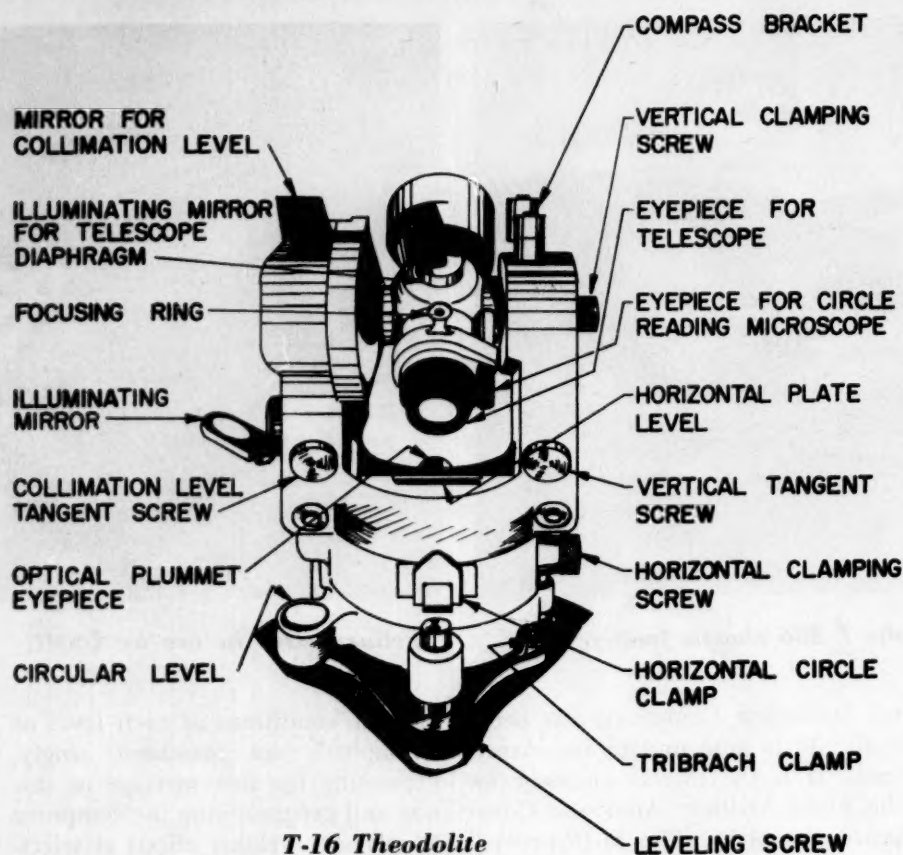
weather conditions at each level of atmosphere are presented, singly. Presenting the met message in this way and programming the computer to solve for weather effects at selected levels of atmosphere for a particular projectile path will give us a solution markedly more accurate than we could possibly develop through any firing table method. Unknown secondary effects, present in today's met corrections, will be largely eliminated. Accuracy—another gain in accuracy!

A more accurate knowledge of the true muzzle velocity of every weapon in divisional artillery is now obtainable on a daily basis. Separate calibration firings are no longer necessary. The new T-7 Muzzle Velocity Chronograph was recently standardized for Army use for field artillery howitzers. It determines muzzle velocity with an accuracy of plus or minus 0.1 per cent. Jeep mounted, it is placed behind a howitzer while a mission is being fired. Using doppler radar effects, it determines the muzzle velocity of the



Col Kramer, Naval Academy Class of '36, commanded his first gun battery in 1941, spent the next four years with artillery units in the South Pacific. His return to gunnery was as CO, Hvy AA Gru, 1stAAABn, in July 1946. He commanded 12th Marines (1956-57), is now Marine Corps representative at US Army Artillery and Missile Sch, Fort Sill, Okla. A linguist, he can give fire commands in French and Italian.

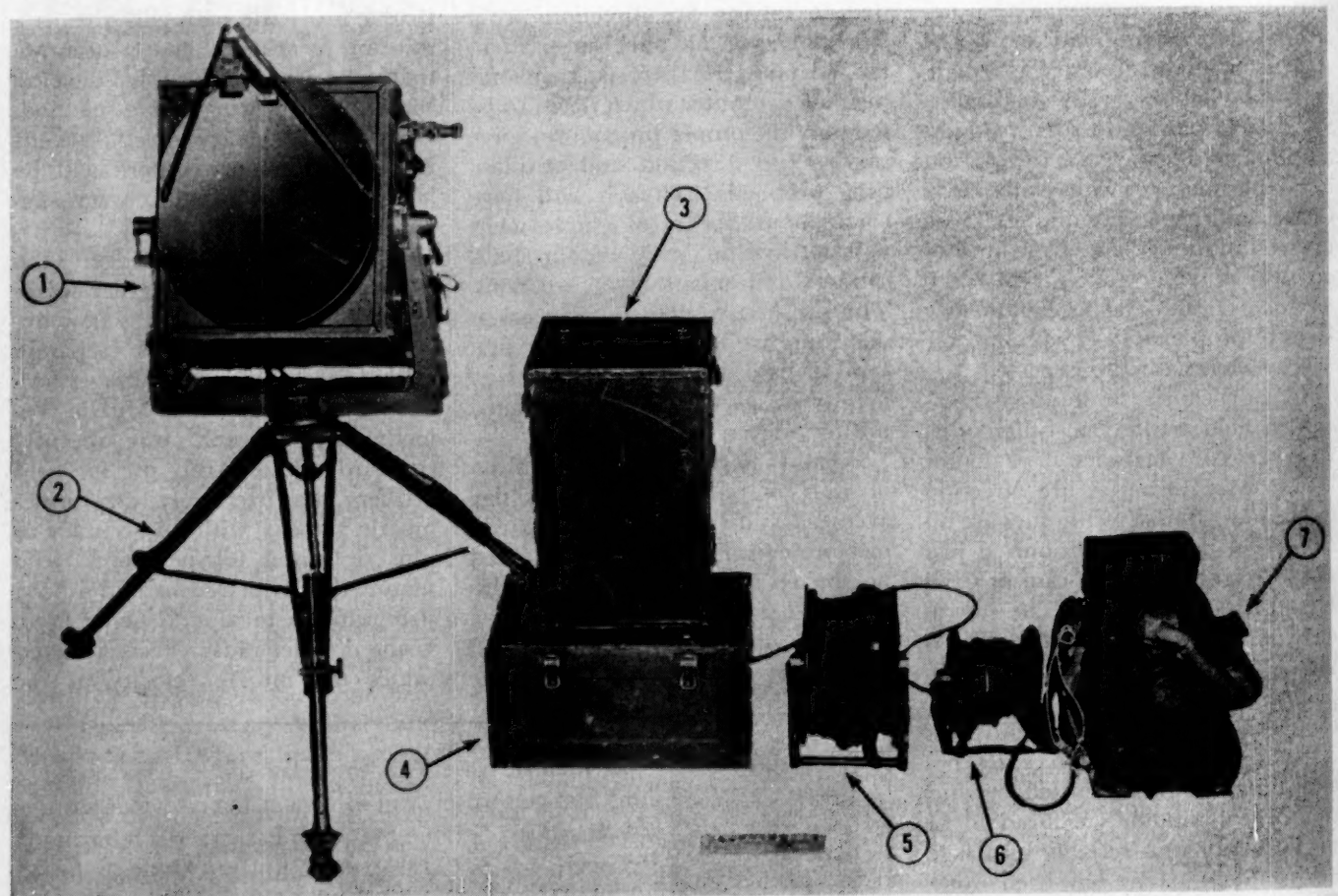
¹January 1960 issue "Technology Review—The Revolution in Surveying," by Charles L. Miller.



round then on the way. Accuracy and more accuracy!

Map plotting with drafting equipment will not be required to fire a mission. Transfer limits for registration may no longer be needed. Some registrations will be required but not near as many as heretofore. Greater surprise will be achieved in opening fire. Great savings in ammunition will be realized.

Even on observed fire missions, greater accuracy is to be expected. "One time" transmissions from the FO directly to the computer are now possible with existing message entry devices. Oral repeat backs will be eliminated. After an observed fire mission is completed, exact data for replot is provided automatically to the fire direction officer for record purposes—more accuracy! It is the great hope among field artillerymen in gunnery that the day of first-round accuracy has arrived. Accurate surveys, accurate muzzle velocities, accurate met data combined



1) RF Head
2) Tripod

3) Computer
4) Spare parts
7) Generator

5) Data cable
6) Power cable



Message entry device sends data from forward observer to computer

with accurate automatic solution of the geometry of the gunnery problem can make this possible. There is every reason to believe that this technical break through will be realized.

As a by-product of the improved digital computer capabilities, it is also possible to do accurate fire planning in a matter of minutes at each planning level. Many field artillery S-3's have worked long night hours making preparatory fire plans for an early morning attack. This is no longer necessary. Commercial digital computers have produced a workable division artillery preparatory fire plan using one hundred targets. In a matter of minutes, once target and gun battery positions are entered in the computer, a fire plan is available. FADAC will also have this capability. Here again there will be a great improvement in accuracy—and production of the fire plan much sooner.

With the ability to produce rapidly a satisfactory fire support plan, the digital computer becomes an effective instrument for overall staff planning. The relative ability to support by fire different prospective schemes of maneuver for a proposed plan of attack can now be ascertained. The effectiveness of different proposed artillery dispositions can be determined. Adequacy of artillery sup-

port and ammunition to be fired can be reduced to relatively exact figures. This will help the Division Artillery Officer in his presentation of artillery requirements in planning any military operation.

So the ability to improve field artillery in its operation and in planning for its employment now exists. The present situation has been aptly stated by MajGen P. G. Wehle, USA, who said: "Among the combat arms—Infantry, Armor and Artillery—the Artillery holds a unique place with respect to automatic digital computing. The Artillery stands at that point in the field army at which technical mathematical computing meets automatic data processing—the instrument of logistics, battlefield management and command." In order to reap the full benefits of automation implied in the above statement, field artillery must remain a fully integrated weapons system. Time and again efforts have been made to dismember this hammer in the hands of the overall force commander by integrating it with the maneuver force at all command levels. Time and again this has not proved to be the best solution.

There have been many efforts to reorganize the field artillery. There are too many of these. They have validity only so long as one condi-

tion is met: weapons and equipment to match the basic concepts must be realized in the time frame considered. Research and development to get a piece of equipment with significant technical advances takes from five to seven years. Therefore military organizations for 1965 should be based on equipment in being in some form today. In this sense the field artillery weapons systems have *validity*. As maneuvering elements tend to be more dispersed, their ability to apply the principles of Mass and Sustained Momentum of attack diminishes. Dispersion is limited by available equipment. The integrated field artillery weapons system envisioned herein will provide massed firepower to more than make up for loss of mass and momentum involved in permissible maneuvering unit dispersion. In fact, this firepower can be many times more effective than any previously experienced.

This brief resume describes the field artillery weapons system as it could be put into use today. From it can be deduced avenues for future improvement. This prospect should make every field artillery officer anxious to try new ideas. There is new equipment. There are new techniques. Cannon cockers—Grasp them to make ours the best field artillery in the world.

USMC

The Extension School's CHALLENGE

BASIC SCHOOL LEVEL

- 1** The Weapons Platoon of an infantry battalion is composed of platoon headquarters personnel and
- 6 machine gun squads and 6 rocket squads.
 - 3 machine gun squads and 1 rocket squad.
 - 6 machine gun squads and 3 rocket squads.
 - 3 machine gun squads and 3 rocket squads.

- 2** By definition a retirement is
- A retrograde movement employed when in contact with enemy forces.
 - a series of limited defensive engagements for the purpose of gaining time.
 - a movement away from the enemy conducted only at night.
 - a movement away from the enemy without enemy pressure.

- 3** A frontline platoon in the defense is normally organized with
- two squads on the MLR, one in reserve.
 - one squad on the MLR, two in reserve.
 - three squads on the MLR, none in reserve.
 - two squads on the MLR, one forward as local security.

JUNIOR SCHOOL LEVEL

- 4** The battalion tactical air control parties transmit requests for close air support to the
- DASC on the Tactical Air Direction Net.
 - CAOC on the Tactical Air Request Net.
 - DASC on the Tactical Air Request Net.
 - Regimental TACP on the Tactical Air Direction Net.
- 5** What are the tactical forces involved in executing a double envelopment?

- 6** Under what landing category will combat troops be placed whose need ashore at an early hour is anticipated, but the exact time and place cannot be determined?
- Scheduled.
 - Non-scheduled.
 - On-call.
 - As required.

- 7** Which of the following are corresponding levels of command?
- Commander Amphibious Task Force—Commander Landing Group.
 - Commander Transport Group — Commander FMFPac.
 - Commander Attack Group—Commander Landing Force.
 - Commander Attack Group—Commander Landing Group.

- 8** What are the two main portions of the battalion plan of attack?

SENIOR SCHOOL LEVEL

- 9** In amphibious operations, which of the following is responsible for the control of pre-D-day air operations?
- Commander, Amphibious Task Force.
 - Commander, Support Carrier Group.
 - Commander, Screening Force.
 - Commander, Advance Force.

- 10** The organization of the Military Establishment of the United States reflects the organizational doctrine set forth in the National Security Act of 1947 and its later amendments. This doctrine is based on the premise that the services should be organized
- so as to conform to the mode of transportation traditional to the particular service; the Army by land means, the Navy by water, and the Air Force by air.
 - so as to assure the maintenance of command of the element in which the individual service primarily operates; the land masses by the Army, the sea by the Navy, and the air by the Air Force.
 - so as to make possible the formation of a force designed to fight limited wars and another one designed to wage total war.
 - so as to ensure their subordinate position under the direction of the Armed Forces General Staff presided over by the Armed Forces Chief of Staff.

For answers see page 56



WHY NOT

Keep up to date?—You get the latest Marine Corps Schools texts when you are enrolled in *The Extension Course Program*.

USMCR ORGANIZE the ORGANIZED RESERVE

By AMSgt J. P. Sepsis

A VERY IMPORTANT ITEM OF TRAINING HAS BEEN OVERLOOKED in the training of Reserve units. Reserve organizations based in the vicinity of the Marine posts and stations could develop a closer relationship that would benefit the Marine Corps and the individual.

There are numerous organized units, i.e., Battalions, Companies, and Batteries, which are spread out in large metropolitan areas as well as in the smaller communities. These units train at Armories, Halls, and at a few active Marine Corps bases. But are they using the Regular establishments to the fullest means? Let us take a few examples.

An Infantry company trains at San Bernardino, Calif. San Bernardino is about 95 miles from MCB, 29 Palms. If this outfit were an AAA or a howitzer battery most of its training could be held at that base. The unit would leave San Bernardino early Saturday morning and arrive at 29 Palms that morning. Weapons could be fired on Saturday as well as Sunday mornings. The unit would be billeted at 29 Palms overnight and finish firing by Sunday noon so as to return to San Bernardino that evening.

Now let's use an example of a rifle company or an infantry battalion. There is no such unit in the San Diego area where facilities of Camp Pendleton and Camp Elliott (just a short drive from San Diego) could be used. A weekend training program of problems, overnight bivouacs and helicopter lifts could be conducted by the rifle company under ideal surroundings at these two installations.

A specialized unit such as a supply company could take advantage of facilities at a regular establishment. At the present time there is a supply unit which trains at MCSA, Philadelphia. Supply companies could be based at Albany, Ga., and Barstow, Calif., with the bulk of the billets in the 3000, 3100, 3400 and 3500 fields. Supply personnel would be training in the various sections of that field. Transportation personnel could handle matters pertaining to shipment, storage and

travel requests. Disbursing personnel could handle Reserve Pay accounts; Motor Transport personnel could handle the maintenance of various vehicles.

In order that the Reservists may receive the necessary classroom instruction such as map reading, first aid, interior guard, and Squad Drill, a trip to the installations away from the Reservists' home armory would not be necessary. Classroom instruction would be conducted by the officers and NCOs at the home base. However, field problems at the various bases and MOS training at the Supply establishments would be the bulk of the Reservist's training each year.

What then would be the Reservist's training for his two weeks active duty at summer camp? As the Marine Corps is primarily amphibious, the Organized unit must also be trained in amphibious techniques. At least a week of amphibious training each year should be compulsory for each Organized Reservist. The lapse of three, four, and five years at the present time in amphibious training does not benefit the Marine Corps or the individual.

The first week of the annual field training would be spent at the Troop Training Units. Organizations east of the Mississippi River would train at Little Creek, Virginia, and units west of the Mississippi River would train at Coronado, California. The second week of the annual field training would be spent at the Rifle Ranges with requalification firing of the rifle and pistol, familiarization firing of the BAR, etc.

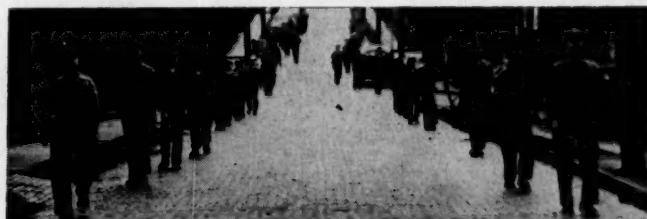
The present designation of units and type of training does not now help the MOS training of the individual. For example, most Reservists in an Antiaircraft Battery with an MOS of 0741 are afforded an opportunity to fire the respective weapon only at summer camp. This does not sufficiently train the individual for an MOS of 0741. However, as the Reservist is assigned to the unit as an Antiaircraft Batteryman, the Commanding Officer has no alternative but to assign such an MOS to that individual. Firing the weapon at 29 Palms during most of the training periods would certainly place the man in a better position to qualify as an Antiaircraft Batteryman. It would permit the CO to better evaluate the individual as well as better qualify the Reservist to pass his Technical Test for promotion.

The Marine Corps and the Reservist would greatly benefit if the Reserve units were redesignated so that they could use the facilities of the Regular establishments *regularly* instead of periodically or at summer camp only. The requirement for a *trained* Organized Reserve is vital to our national security and cannot be overemphasized.

USMC



LMG drill in armory—field training is needed.



Hiking in the city—better in the field.



THE RIFLE IS FOR BULLETS

By Capt C. B. Haslam

✻ LET'S TAKE A LOOK AT A WEAPON made obsolete by the adoption of the breechloading rifle: the bayonet. This item could be eliminated from the Marine's combat load and never be missed. The need for a bayonet was real when the rifleman was only capable of firing one shot from his rifle. He then had to reload through the muzzle. But times have changed. We no longer have to reload with separate charges of powder and ball after each round and, as a result, we do not surge forward to engage the enemy with bayonets after one or two rounds have been expended. The bayonet is no longer capable of disabling the enemy unless its wielder can pierce the throat of his assailant, a very small target. I am told that it is extremely difficult. The bayonet cannot penetrate the armored vests now used by first rate armies. As a result, the old thrust to the body is no more. How much easier, safer, and more efficient would it be if you found yourself in such a position, to automatically fire into the enemy without requiring separate parries and thrusts with a bayonet which you could use only once? Twenty rounds of ammunition automatically fired might get you out of the situation. A bayonet could not.

To help cover the gap between the minimum range of the lightest mortar shell and the rifleman's position, we have provided him with fragmentation hand grenades. The maximum range of these hand grenades is about 45 yards. There may be good reason for the retention of fragmentation hand grenades. But there is movement under way to per-

mit the rifleman to fire these grenades by means of an adapter. Using the adapter, it is possible for the rifleman to project his fragmentation grenades out to distances beyond 150 yards. Such a device is an additional burden on the rifleman. In addition, such a device duplicates close support weapons specifically designed for such a situation. It cannot be denied that hand grenades beyond 50 yards have little or no effect upon the situation. In the first place there are seldom enough of these grenades to lay down an effective pattern. In the second place, at this point of the game, the rifleman should be engaged in his primary role as

a rifleman and not as a .30 caliber mortarmen. A light mortar shell can be brought in as close as 50 yards to the rifleman's position. Such a mortar shell has a greater effect on personnel than does a hand grenade. The injection of grenade launchers and adapters into our already overburdened supply system, solely to enable the rifleman to project fragmentation hand grenades to greater ranges, should be discouraged.

While on the subject of grenades, let us discuss the Grenades, HEAT, M28 and M31 with which we are presently burdened. Here, again, are two grenades that could be eliminated from the weapons structure of a Marine Rifle Company. These grenades, infrequently used, cannot defeat modern enemy armor. They cannot penetrate the armor of modern tanks. Since they cannot satisfactorily perform the job for which they were designed, they should be discarded. The grenades under discussion may be fired to maximum distances of 290 yards and 250 yards respectively. From a static rest, the dispersion of the M28 HEAT grenade at 290 yards exceeds 45 feet vertically and 12 feet horizontally. Weigh your chances for obtaining hits at those ranges. Consider, even if you did, the resultant damage—nil. Of course, the effective ranges



T-44 with accessories. Note 20 T65 cartridges—to fill one magazine.

of the subject grenades is 100 yards. Even here, your chances of hitting are remote. There is no good reason for the retention of these grenades, and launchers to go with them, because anti-tank grenades, in addition to inefficiently duplicating the 3.5 inch rocket launchers, are not capable of doing the job. Our present employment of 3.5 inch rocket launchers is sufficient to cope with the appearance of enemy armor. They are readily available and, more important, since they were designed specifically for the defeat of armor, they can at least hold their own. In addition, in the event enemy armor makes its appearance, we have weapons more specifically designed to cope with the situation. Retention of antitank grenades within our weapons structure would well justify the issuing of bows and arrows for employment against modern armor.

If the above reasons, and also the fact that rifle barrels must be made heavier in order to receive attachments, are not sufficient to rid our structure of bayonets and grenade launchers, here's another argument.

Let us assume that a rifleman in a hypothetical case has just returned



Capt Haslam served as an enlisted man from June '37 to Jan '41. After his discharge he worked for the Civil Service Commission. Upon reenlisting in the Corps, Oct '42, he was commissioned a 2dLt. Promoted to Capt in '46, he reverted to MSgt in Nov '48. A veteran of WWII and the Korean conflict, Capt Haslam retired in June '59 after 21 years of active duty. He is now a factory representative for the Electro-Way Corporation.

from Europe after taking first place in international competition. He has just finished zeroing in his rifle, and immediately came by helicopter to his position in the front line. It is now midnight. At daybreak the Marine spots an enemy soldier 300 yards away (estimated by a range finder). There is no wind, the enemy in question has two broken legs and cannot move, and by chance is located at the same level of elevation as our rifleman. The rifleman has not removed his bayonet which he affixed to his rifle the night before. Observing the unfortunate enemy soldier, and not knowing that he can't move, what are his chances of hitting him? Such a stupid problem as this probably deserves a stu-

pid answer, and realizing that all factors are known it stands to reason that the rifleman involved should have at least a 90 per cent chance of a first round hit. Certainly the fact that he has a bayonet affixed to his rifle would make no difference. That is where the reader is mistaken; the Marine's first shot could be as much as four feet away from his target. We'd get a similar result if the rifleman had a grenade launcher attached to the rifle; the error might be smaller.

The reason for the desirability of having a rifle capable of shooting bullets when attachments are affixed is only too obvious. However, there is a distinction between just firing



Sniper cuts down enemy—is the bayonet necessary?



Effective range of rifle grenades is 100 yards.

bullets and firing bullets that hit people.

The fact that attachments on the rifle will change the center of impact for that rifle is not generally known. Perhaps a brief discussion would be enlightening at this point. What causes such an effect on the rifle and what can be done about it? A combination of influences coupled together cause the changing of the center of impact. First, what transpires when the rifle is fired? When a cartridge is fired in a rifle a number of things happen. One of these is that the rifle barrel vibrates: sometimes referred to as "barrel whip." In other words, the barrel will vibrate or whip as each shot is fired. Now place a bayonet on the end of this rifle barrel and fire a cartridge. What happens? The added weight of the bayonet, or any other attachment you may desire to put on, affects the vibration of the barrel. The initial inertia of the attachment must also be considered. As the cartridge is fired, the rifle

moves to the rear in recoil. If the attachment affixed to the rifle has any amount of play, and they all do, the rifle barrel will contact the attachment with a shock-like blow with unfavorable results. This combination changes the center of impact of the bullet by as much as four feet—



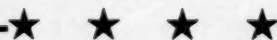
hardly conducive to a first-round hit.

Whatever the decision in respect to the elimination of rifle attachments, one thing is certain. If they are to be retained, steps should be taken to permit every Marine to retain his bayonet. Like rifles, no two are identical. In addition, a provision should be incorporated into the

rifle qualification course where the Marine, armed with the M14 Rifle, could zero in his rifle at 100 or 200 yards with and without attachments. This would show him how the center of impact is changed and how it will vary with each rifle and attachment. Only with this additional knowledge and training will the Marine be able to take his place on the field of battle knowing that the chance (and it is that) of obtaining a first round hit is resolved in his favor.

In times like these the trend is toward less weight. However, this trend need not necessarily mean light weight metals. Let us discard the bayonet, antitank grenades, grenade launchers, and projection adapters. If we expect the rifleman to be a rifleman, we should take away his attachments. The rifle is rapidly approaching the status of an eight-attachment vacuum cleaner. A rifle is made for use against men—attachments make it less useful in this role.

USMC



Rules Of The Game

♣ DURING THE ACTION IN KOREA, replacement pilots were "blooded" on the wing of one of the old hands. Their first combat mission was flown under the watchful eye of a leader familiar with the flak traps and range of enemy antiaircraft fire. One such "new boy," a young aviator never before shot at in anger, was fortunate enough to find himself on the wing of then Major Hank Hise. As they crossed the bomb line, telltale puffs of smoke in their immediate vicinity disclosed the intent of the enemy gunners. Obviously shaken, the intrepid young aviator, finding radio silence too much to bear, pushed his mike button and stuttered, "Hey, Major! They—they're shooting at us!" The reply came in paternal tone, "That's alright, son. They're allowed to."

\$15.00 to Capt J. G. Martz III

Marine Corps Gazette • September 1960

THE SALTY SKIPPER

SAYS

TAOR-Offensive or Defensive?



IT WAS A REAL GOOD SESSION. LtCOL SPIKE NESBITT invited us company commanders over for a cool one and a bit of informal shoptalk. He was in the kitchen fixing another round. I had the floor. "I say the concept of separated TAORs destroys the spirit of the offensive. Look at the way we even plot it on the acetate, a defensive perimeter if I've ever seen one. What's happened to the old Marine spirit of the assault, grind 'em up and push 'em out?"

I was still expounding when the colonel returned with a tray of reinforcements. "Let me answer that one, Salty," he said. "First, there's a lot in what you say. But I think it's more of a psychological problem than a tactical impediment. I think you'll agree that our Marine divisions showed plenty of offensive spirit during their WWII island hopping campaigns."

"You're darn right, Colonel. Why, I can remember . . ."

"Good, Salty. That's all I need to make my point. Look at it this way: those battles, securing one strategic island after another, were nothing more than a successive occupation of tactical areas of responsibility. The whole Pacific was the battlefield. We landed where we had to. We bypassed rocks that were darn near impregnable or that we didn't need. We cut their lines of communication. We made their positions untenable."

I picked a glass off the tray before answering. "Thank you. That's true, Colonel, but I don't see how it applies to a Marine force establishing a beachhead."

He finished passing around the drinks, sat down, then turned to me. "Salty, the similarities are there. The only distinction is that WWII application was on a strategic scale. We didn't occupy the entire Pacific—it was impossible. We won't occupy the whole Force Beachhead in the future. Threat of nuclear war makes it impractical."

I allowed all this was true but it was Ray Costello who voiced what I had been thinking. "One thing, Colonel, in a beachhead we aren't going to have the Navy controlling those voids between battalion TAORs."

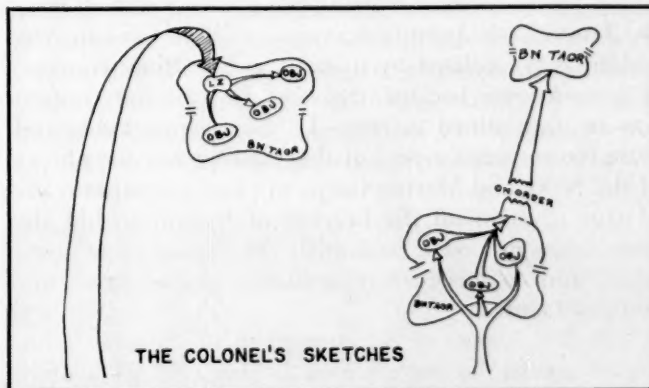
LtCol Nesbitt faced his "B" Company commander. "No, Ray, you're right. But we do have a mighty fine alternative built right into the TO, a fourth rifle company as a recon element."

I started to get the message. "Sure," I said, "and how

about the Recon Battalion? Use it as a unit—air/ground cavalry, if you like—and these TAORs won't be hanging in midair." Then I remembered my original objection. "But, Colonel, I'm still uncomfortable about one thing: to me there's nothing more defensive looking than a TAOR drawn on a '1 to 50'."

"And there you have it, Salty. I say we sometimes err in selecting a map symbol for TAOR. The same symbol has always represented a defensive perimeter. Remember, I said this was a psychological problem. We look at those goose eggs on an overlay and see defense. Actually, it normally is an objective, an intermediate objective, or a boundary encompassing several objectives. These are objectives that must be assaulted and occupied. Later they can become the base for attacking the next objective—or TAOR."

He reached for a cocktail napkin, on it penciled lines



denoting several TAORs. "I don't know what the answer is. Maybe just education. But again we should be careful in using the TAOR symbol. We should always show the BLT's mobility and drive in the assault. These symbols here using directional vectors are perfectly compatible to the concept. I think they should be used whenever possible."

I studied the colonel's rough sketch, then passed it to Ray. "Colonel, you have reassured me. I guess the principle of offense is still there. But I do think we better take steps to see that all of us who deal with these goose eggs get the word. I think your psychological problem is a real one. We better lick it before we become completely oriented to defense." USMC

THE INCHON LANDING

By Gen O. P. Smith, USMC (Ret)



❖ TODAY, THE INCHON LANDING, IN THE EYES OF THE public, is symbolized by its bold and brilliant concept. It is so known because the execution of the concept was an unqualified success. To me, a remarkable and little remembered aspect of this landing was the ability of the Navy and Marine Corps to place a combat-ready Marine division off the beaches of Inchon within the time limits imposed, and with the resources in men, ships, and material then available in the peacetime establishment.

The first impact of the concept of the Inchon Landing on the 1stMarDiv came on 25 July 1950. The Division did not then know that on 15 September, 52 days later, it would be landing at Inchon, Korea. All the information it had was contained in a directive to bring the Division (less 1 RCT) to war strength and sail it for the Far East between August 10th and 15th, 16 days later, ready for combat. This meant that within 16 days the Division had to begin the embarkation of some 15,400 ground troops in augmented war strength units with the additional equipment required. For the Navy it meant assembling, on short notice, 19 ships of all classes.

What were the immediate resources in men, equipment, and ships? There were 3,500 short-timers at Camp Pendleton. Earlier, the 1st Provisional Marine Brigade

(about 5,200 ground troops), drawn from the 1stMarDiv, had been rushed to Korea. The bulk of the required additional equipment was in "moth balls" at Barstow in the Mojave Desert. The Navy had little amphibious shipping on the West Coast and had to use available commercial types.

To meet the personnel requirements, authority was granted to extend the enlistments of the short-timers, and Marines were ordered in from posts and stations throughout the United States, from the 2dMarDiv at Camp Lejeune, and from the Reserves. "Moth-balled" equipment was dusted off at Barstow and rushed to Camp Pendleton, or direct to the docks. There was not time to test all of the equipment; some had to be checked after arrival in Japan. By working around the clock, incoming Marines were classified and those deemed combat-ready were integrated into units. Loading facilities at San Diego were cramped. Some of the ships were slow in arriving. One ship, after being 20 per cent loaded, blew two boilers, and had to be unloaded and replaced. Ships were routed to Kobe, Japan, as soon as loaded. Despite the delays and setbacks, all ships were sailed within acceptable time limits.

The full impact of the concept of the Inchon Landing was felt by the Division when the division commander arrived in Tokyo on 22 August and was told

These articles were written in response to a request by Lynn Montross, historian at Marine Headquarters for the past ten years. They are the first comments for publication on the Korean War ever granted by Gen O. P. Smith. The last articles he published in the Gazette were in 1925 or 1926, when the magazine was a quarterly. He has, however, prepared for Marine Corps archives a total of more than 2,000 typed pages of historical material about the Korean War. His purpose was to make sure the accomplishments of his men from August 1950 to April 1951 were preserved for the future. The only fault that could be found with these records, as Mr. Montross says, is that they are so completely objective and self-effacing that Gen Smith himself does not receive the credit he deserves. In this same spirit he has requested that payment for these two articles be turned over to the Scholarship Fund of the 1stMarDiv Association. A second follows in December.

that the Division would make an assault landing at Inchon on 15 September, the only day in September when the tides were suitable for a major landing. Twenty-four days remained in which to draw up plans, issue an order, reload the Division in amphibious shipping at Kobe, forward to Korea the additional personnel and equipment to bring the units of the 1st Provisional Marine Brigade up to war strength, and then proceed to Inchon, rendezvousing with the units of the Brigade en route. On 22 August the main body of the Division were on USS *Mt McKinley* in Tokyo.

By dedicated work on the part of the Division staff, and with the wholehearted cooperation of Adm Doyle's PhibGruOne staff, within three days a detailed plan for the Inchon Landing was drawn up, and two days later an advance planning draft of 1stMarDiv OpO 2-50 (Inchon Landing) was issued.

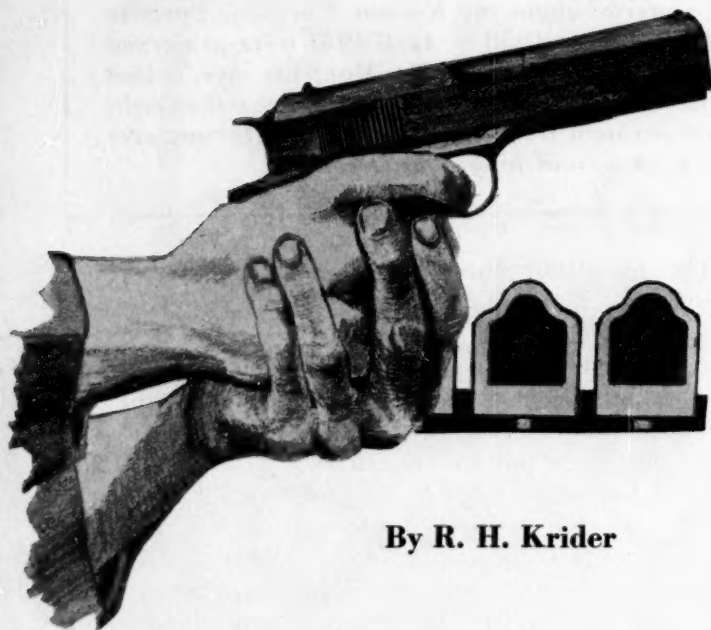
The plan had yet to be executed. The situation in Korea worsened, and the release of the 1st Provisional Marine Brigade was deferred, but D-Day still remained 15 September. The Brigade was finally released from combat at midnight, 5 September, six days before its first LST had to sail for Inchon. At Kobe, as ships carrying the main body of the Division began to arrive, men and equipment had to be reloaded into amphibious shipping. The last ship carrying men and equipment needed for the landing arrived at Kobe on 3 September; the LSTs had to depart for Inchon on 10 September. On 3 September, typhoon *Jane* hit Kobe.

The docks were flooded, ships broke their moorings, and one AKA had a damaged propeller requiring dry-docking. Reloading was set back 24 hours. SS *Noon-day* developed a fire in one of its holds while approaching Kobe. On 8 September, by order of the Secretary of the Navy, 500 men, all those under 18 years of age, had to be put ashore. On 10 September, after the LSTs had sailed from Kobe, Adm Doyle received another typhoon warning. Typhoon *Kezia* was approaching Kobe, and the sailing of the APA and AKA was advanced from 12 September to 11 September. This cut another day from reloading time, yet the Division met its deadline.

In the early morning hours of 15 September, D-Day, Marines were finally in their assigned landing area ready to proceed to the beaches. These Marines had been drawn from many sources, but their training and indoctrination had been uniform. Furthermore, a large proportion of the officers and senior noncommissioned officers had had combat experience in amphibious operations. There had been no time for a rehearsal, but they knew what to do, and history records that they did it. All that had preceded—the accelerated planning, the constant pressure, the around the clock working parties, and the surmounting of seemingly insurmountable obstacles—all were vital to the success of the landing, with its inexorable deadline of 15 September. Today, perhaps only the participants realize this. USMC



ONE MORE STEP



By R. H. Krider

✦ MOST MARINES ARMED WITH A PISTOL DOUBT THEIR ability to use it quickly on an elusive target. The reason: traditional training goes only part way. As stated by Capt P. E. Sanders (GAZETTE: May 1956), "It takes no great amount of acumen to deduce that the individual on the battlefield is going to be crouching, kneeling or lying flat as he engages his target. It would be idiotic to assume that he is going to be standing in the approved firing line position coolly 'squeezing them off,' while the enemy closes with burp gun, grenade or bayonet. Why then do we persist in our impractical precepts of pistol training?"

The question is worth some study. Consider the aver-

age Marine, as presently trained, faced with a target within pistol range. Under combat conditions would even the better pistol shot take time to line up the proper sight picture, breathe, and squeeze the trigger? It is unlikely. Marines, however, can be taught to use the weapon so that they will react instinctively and effectively even under combat tension. To do just this, the FBI and most police departments train with a practical combat course. Experience proves it pays.

The military situation is not altogether comparable but the techniques are similar. The absence of combat training practically assures that most Marines armed with the pistol could not shoot effectively in combat. Combat shooting needs to be integrated with present training methods throughout the Marine Corps. They are complementary and, combined, will produce more polished and confident shooters.

We need more training of a practical nature. Since HQMC has determined that the present qualification course is to be retained, combat shooting is a logical supplement. This theme is not a new one, of course. Capt C. B. Haslam and Col F. P. Henderson have advocated practical pistol training (GAZETTE: August 1957), as has Capt Sanders.

Combat shooting falls into two general categories. For longer ranges of 10 to 50 yards, combat shooting is deliberate aimed fire from a convenient, steady position. The shooter can, and should, use sights, a support and a steady two-handed grip.

The second category is close combat shooting. Distances not generally greater than 10 to 15 yards can be considered close, although close combat methods may be used at greater ranges depending on the situation, confidence and ability of the shooter. Close combat requires fast shooting usually without sights. The best term for aiming in close combat is Rex Applegate's "instinctive pointing." (Kill Or Get Killed, Military Service Publishing Co., 1958)

At the longer ranges the man armed with the pistol should not stand and take aim. He should use some cover or hit the deck to present a smaller target. Then, using his sights and a two-handed grip, he is ready to



Kneeling position



Sitting position



Two-handed grip



Standing position

Prone position



engage his enemy. The two-handed grip helps compensate for psychological factors and insures a steady aim. With it the pistol is gripped in the normal manner with the right hand. The butt is seated in the palm of the left hand and the thumb and fingers are curled up around the firing hand in a natural comfortable manner providing maximum support. To steady himself, the shooter can use several positions. These positions, (prone, kneeling and standing behind a wall), should be covered in training. The positions are described in FM 23-35.

These positions suit the Marine who has the time to take cover or a better, steadier position. In close combat the target is encountered at shorter ranges and requires quick action. Here the shooter must depend more on reflexes and instincts. Training must appeal to this. Here "instinctive pointing" is used. It works like this. The shooter, while looking at his target, raises his weapon to the line of sight and fires. This is like throwing a baseball. The thrower looks at the point of aim and lets the follow through deliver the ball to the point of aim, with considerable less accuracy than in shooting.

A logical starting point for close combat shooting is a carrying position. When a Marine may have to shoot, he should have his weapon in his hand. Seldom should he need to make a quick draw and fire. Neither the .45cal pistol or holster was designed for this. We should not train the Marine to draw and fire like a policeman. The practical starting point for military combat firing is from the combat ready position.

The ready position is not the raised pistol. In combat a shooter should never carry the pistol at any degree or raised pistol. When the shooter carries it at the raised pistol position, his natural tendency is to shove it at the target. The structure of the arm itself and the momentum of the forward shove upon the wrist, when the arm is fully extended, makes the wrist drop and the barrel point downward. The structure of the service pistol tends to aggravate this tendency. The best ready position is with the pistol pointing downward at about a 45 degree angle, slightly across the front of the



Mr. Krider a graduate of the Naval Academy was commissioned in June '49. He attended Georgetown University as a post-graduate student from '56 to '57, and was discharged from the Corps in June '60. The reasons behind One More Step are: a belief that our marksmanship program is not satisfying the aims of pistol training, and to teach Marines to shoot effectively under conditions they may encounter. Mr Krider now resides in Greenville, Texas.

body. The best all around position for moving with the pistol when it may be needed is a forward crouch, keeping the feet in a natural position, comfortably spread.

To shoot the weapon, grip it normally. Raise it from the ready position to the line of sight, locking the wrist and elbow, and fire. The eyes are kept on the point of aim. The trigger is pulled with a quick, firm, convulsive squeeze—not jerked. For effect, fire twice initially. The first shot is fired when the arm is fully extended. By the time the second shot is fired, the weapon should be in line of sight assuring more accuracy with the second shot than with the first. Subsequent shots can be pointed quickly. Even without careful aiming a reasonable amount of training can develop effective accuracy at short range.

For training, a close combat or quick fire string could work like this. The shooter faces a bank of three targets, any one of which can be turned. His start is at a line 20 yards from the targets with his pistol in the holster. A magazine and six rounds is inserted but no round is in the chamber. On command he draws his pistol, comes to the combat ready position and loads. On a second command he starts moving toward the targets. After he has moved about five yards, one of the three targets will be turned to face him for three seconds, then faced away. He must fire twice while the target faces him. When the target faces away the shooter comes to the combat ready position and advances again. After approximately three paces another target is turned to face him for three seconds. This happens at three-pace intervals until he reaches the five-yard line. Targets turn toward the shooter five times; he fires twice at each, reloading after the fifth round.

The suggestions outlined here are not, and cannot be, complete. An optimum course of training can only come from experiment and more thought. Combat shooting can be accomplished, with minor alterations, on the ranges we now have.

There will always be a need for better methods to train Marines. Combat shooting, augmenting present marksmanship, is a step toward better training. It will make many pistol-carrying Marines far more combat ready. More than that, it can build the key factors that make championship shots—interest and confidence.

It's time to take this step closer to combat readiness.

USMC



Combat quick shooting position

LARGE SEDENTARY TARGETS ON RED BEACH

By Lynn Montross and Nicholas A. Canzona

*Part of the audacious gamble at Inchon—
Beaching eight LSTs at H plus 1 hour.*



THE LETTERS LST, AS EVERYONE knows, originally stood for *Landing Ship—Tank*. But it was discovered in WWII that you didn't have to be discriminating as to the nature or amount of the cargo. You could stuff a couple of bulldozers, a few howitzers and a combat-equipped company of troops into one of those floating warehouses and have enough room left for a locomotive or two.

Nobody loves an LST. Alongside a destroyer or cruiser, an LST has no romantic appeal whatever. Yet it was those wallflowers of the USN who supplied the derring-do in one of the greatest amphibious assault operations of American history. It was those thin-skinned cargo vessels, carrying enough gas and ammunition to blow them sky-high, who went in on the heels of the landing force at Inchon while the DDs and CLs looked on from a safe back seat.

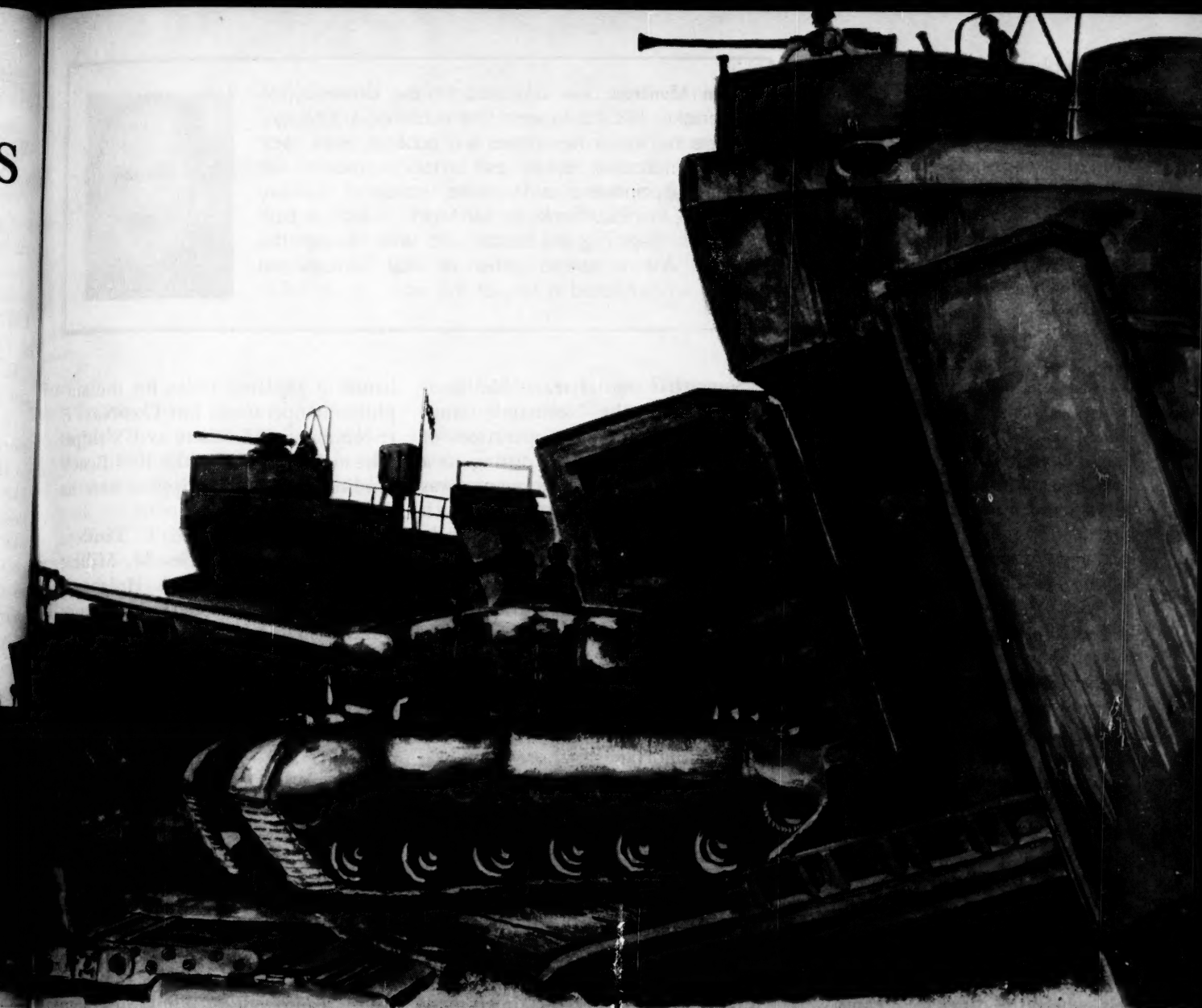
At H-hour a man feels like an iron duck in a shooting gallery when he climbs into a LVT or LCVP. But that is nothing compared to the targets presented by the eight LSTs carrying the mail to Red Beach at H plus one hour on 15 September 1950. Marines who landed in the last waves of the assault force will never forget the spectacle of those eight hulls wallowing toward shore in the murky overcast just before dusk. Red Beach and the urban area immediately behind it—the waterfront of an Asiatic seaport of some 250,000 pre-war population—were hidden from sight except for the flashes resembling heat lightning as our bombardment scorched unseen objectives on shore. But there was no difficulty in seeing the LSTs if you could make out your hand in front of your face.

At Inchon it was their mission to

nourish the beachhead assault with the supplies most immediately needed. This meant grounding all eight LSTs abreast. Grouped so close together that the hulls had only about 50 feet of sea room on either side, they could scarcely have been missed by an enemy lobbing in a few mortar rounds. A single shell landing among the drums of high octane gas might have started a chain reaction involving the entire supply squadron in a major disaster.

This is the story of those eight nameless cargo vessels. It is a story based not only on special action reports and other official documents but also the replies to letters of inquiry sent by the authors to all eight commanding officers.

Every amphibious operation, of course, is unique in the opinion of the men who were there. But Inchon came just a little closer to be-



ing unique than the others. To begin with, the objective area was a hydrographer's nightmare in which mud flats were combined with one of the world's greatest tidal ranges. These physical difficulties were compounded by a planning interval amounting to a fraction of the time usually allotted to a major amphibious operation. For the final decision was reached on 23 August and D-day was set for 15 September 1950.

So much has been written about Inchon that it may perhaps be assumed that all readers are familiar with the broad outlines. The most distinguishing feature was that the planners had practically no options. D-day had to be one of a few days in the middle of September. Only then did the tidal range provide a minimum depth of 29 feet to float the LSTs over the mud flats of the harbor, and a comparable period in

October was deemed too late for strategic reasons.

Swift currents and narrow, twisting channels made it undesirable, if not impossible, to plan a large-scale approach under cover of darkness for a dawn landing. Besides, a fortified island in the inner harbor, Wolmi-do, had to be neutralized in advance of the mainland assault if the landing craft were not to risk being blown out of the water by flanking fire. The only solution, as the planners saw it, was to take this objective in a preliminary landing on the morning high tide, and to hit the mainland beaches when the evening high tide permitted. This meant that the enemy would be given the entire day for strengthening his mainland defenses, though the assault troops would have only about an hour and a half of daylight left for gaining a foothold in a strange

Oriental city.

MajGen Oliver P. Smith's 1stMar Div, as Landing Force, was short one infantry regiment, RCT-7, which could not arrive until D plus 7. Thus the plan of attack called for the 3d Bn of RCT-5 to hit Green Beach (Wolmi-do) on the morning of D-day. On the afternoon high tide, RCT-5 (less 3/5) was to land on Red Beach, skirting the Inchon industrial area, while RCT-1 hit Blue Beach, southeast of the city. Both so-called beaches were mere strips of urban waterfront with sea walls which made scaling ladders necessary.

The LSTs enter the picture for the simple reason that the assault troops on Red Beach had to be supplied immediately with tanks, vehicles, rations, water, gasoline and ammunition. Arrangements also had to be made for casualty evacuation.

The supply vessels were limited to eight because no more could be squeezed into the limited space on Red Beach. Each was to carry a cargo of 500 tons: 400 tons of trucks, bulldozers and other heavy equipment; and 100 tons of high priority supplies—50 of ammunition, 30 of rations, 15 of water, and five of fuel.

H-hour was set for 1730. LCVPs were designated for the Red Beach landings, since their comparative speed would clear the area for beaching the LSTs when they moved in, about an hour later. As for Blue Beach, the planners had decided that it wasn't feasible to land LSTs and the area wouldn't be developed beyond the immediate needs of the assault. For this purpose, 16 pre-loaded LVTs were to serve as floating dumps until RCT-1 could link up with RCT-5.

The importance of the eight LSTs was enhanced by the fact that Navy medical officers were using them to initiate a revolutionary new technique in coordinating the care of casualties with the tactics of a major amphibious operation. On the principle that delays in definitive surgery often proved fatal, it was planned for six surgical teams, each consisting of three doctors and ten corpsmen, to hit Red Beach with the LSTs. Four of these teams were to give first aid on the beach before evacuating patients to the cargo vessels, where the other two teams were equipped to provide definitive surgical care for critical cases in improvised operating rooms.

Lynn Montross was educated at the University of Nebraska. His stories were first published in Chicago, where he was a newspaper and publicity man. His great interest in history and historical research led to an appointment as Historian, Historical Division, HQMC, in 1950. Books by Mr Montross include *East of Eden*, *Rag, Tag and Bobtail*, and *War Through the Ages*. A new revised edition of *War Through the Ages* was published in May of this year.



Somewhat similar teams had been employed in the Normandy landings and South Pacific operations of WWII. But Inchon, according to a Navy medical announcement, was the first amphibious assault in which a carefully plotted surgical technique was integrated with military tactics.

Obviously, the contribution of the LSTs both in logistical and medical respects would depend on how well they survived the calculated risks. G-2 summaries indicated a light enemy resistance, but a single Communist mortar or shore gun was capable of doing a great deal of harm. LST meant Large Sedentary Target on such occasions.

In addition to their vulnerability, the landing ships labored under disadvantages heaped upon them by circumstances. The American government, in order to provide sufficient vessels for the Attack Force during August 1950, reclaimed many of the LSTs lent to Japan for island trade after WWII. Thirty of these rusting hulks were to remain in the

hands of Japanese crews for the amphibious operation, but ComNavFE re-commissioned others as US ships. The eight chosen for the Red Beach landings and their skippers were as follows:

LST 859—Lt Leland T. Tinsley;
LST 883—Lt Charles M. Miller;
LST 914—Lt Ralph L. Holzhaus;
LST 973—Lt Robert I. Trapp;
LST 857—Lt Dick Weidemeyer;
LST 799—Lt Trumond E.

Houston;

LSTH 898—Lt Robert M.

Beckley;

LSTH 975—Lt Arnold W. Harer.

Officers and crews were rushed to Japan from all over the United States. Although some of the men had never set foot in an LST, their job was to make the ill-kept ships seaworthy and battleworthy in about two weeks. And it is to the everlasting pride of the naval service that when the time came, the LSTs were ready to go. The ships were reasonably clean, the guns reasonably reliable, and the engines and equipment reasonably operative.



Aerial view of Red Beach (after D-Day). High ground (center) is Cemetery Hill.



Maj Canzona was commissioned in Apr '46 via Notre Dame (V-12). In June '54 he got a BS in Chemistry from Johns Hopkins University. A combat veteran of the Korean conflict, he was released from active duty in 1957. While on his last active duty tour, Historical Branch, HQMC, he collaborated with Lynn Montross on many articles. A successful boat dealer in Annapolis, Maj Canzona also teaches at the Naval Academy.

Some of the "intrepid eight" sailed to Pusan in early September to pick up units of the 1stProvMar Brig, just released from combat in southeast Korea. The remainder took on elements of the 1stMarDiv at Kobe after weathering the 74-MPH winds of Typhoon Jane. On 10 September, D minus 5, the LSTs at that port departed for the objective as part of the two tractor movement elements of TASK FORCE 90. Two days later, at a check point in the East China Sea, they were joined by the Pusan contingent.

The ungainly fleet then lumbered into the Yellow Sea one jump ahead of Typhoon Kezia, which struck Japanese waters only ten days after Jane's violent visit. To nerve-taut commanders, it was like racing turtles across a highway in the path of an on-rushing steam-roller. But the LSTs made it. And with the other ships of TF 90, they safely closed on the final check point off the west coast of Korea on D minus 1.

In the early-morning blackness of 15 September the Fire Support ships

nosed their way up Flying Fish Channel toward the target area. Following in column, the Advance Attack Force threaded the perilous passageway with the 3d Bn of RCT-5. Thanks to radar and seamanship, all vessels of these vanguard detachments were intact as they took station off Wolmi-do just before dawn on D-day. Planes of the ASptGp (*Badoeng Strait and Sicily*) and of TF 77 (*Boxer, Valley Forge and Philippine Sea*) assembled overhead.

Since this is the story of the LSTs, suffice it to say that 3/5 overran Wolmi-do in short order and at an astonishingly low cost in casualties. By 0800 the fortress island was secured and all eyes turned toward Inchon as the 29-foot tide receded from the mud flats fronting the seaport.

Early in the afternoon RAdm James H. Doyle, the Attack Force commander, confirmed 1730 as H-hour after receiving a hydrographic report from the senior control officer, LtCdr Clyde E. Allmon, aboard *Diachenko* (APD 123). The word

went out to all ships, and at 1430, H minus 180 minutes, the narrows exploded in a succession of orange flashes and mustard-colored blasts. Great clouds of smoke shot up from Inchon as the cruisers and destroyers poured in salvo after salvo. Flights of Skyraiders and Corsairs plummeted down intermittently to plaster the seaport with rockets and bombs.

As luck would have it, nature stepped in with still another handicap during the final hours before the assault. Rain squalls added to the density of the overcast until the objective area was almost blotted from sight. Moisture-laden clouds of smoke even rolled seaward to befog the boat lanes. VAdm Arthur D. Struble, CJTF 7, who roamed the Blue Beach area in his barge during the assault, later commented:

"In my previous amphibious experience in a large number of landings in the Southwest Pacific as an amphibious commander, I had never before seen smoke hanging so completely over the approach to the beach area."

With some 550 landing craft now in the water, the Red Beach control vessel, *Horace A. Bass* (APD 124), swung slowly past Wolmi-do toward the line of departure. Strung out behind, like a file of ducklings, were the LCVs carrying assault troops of the 5th Marines. *Wantuck* (APD 125) edged forward to her station at the head of the murky boat lanes to Blue Beach.

As H-hour approached, the sup-



Inchon's waterfront blazes as LST pushes up to beach.



Men and equipment unload from LSTs abreast at Inchon.

port ships increased the tempo of their gunfire. But all at once the seemingly dead objectives showed signs of life that boded no good for the assault craft, let alone the eight Large Sedentary Targets. Lt Theodore B. Clark, USN, Blue Beach control officer, later summed up the first enemy threat as follows:

"At about H minus 50 minutes, while press boats and the initial waves of LVT(A) and LVT were milling around the Blue Beach control vessel, mortar fire was received in the immediate vicinity. This created some confusion until a destroyer spun around on her anchor and silenced the battery."

As the vanguard tractors of the 1st Marines were crossing the midway point of their boat lanes about 1705 (H minus 25 minutes), the cruisers and destroyers ceased firing and the three LSMRs poured their rockets into the objective. Some 6000 of these missiles hit Inchon during the next 20 minutes. This thundering barrage doubtless drove the Communist defenders to cover but it also added to the blanket of smoke shrouding the seaport.

On signal from *Bass* at 1722, eight LCVPs comprising the first wave of RCT-5, crossed the line of departure and steered toward the sea wall of Red Beach, 2200 yards away. One of the P-boats broke down but the others reached the revetment between H plus one min-

ute and H plus two. The Marines of the first wave braced their scaling ladders and threw grenades over the wall. Then they scrambled up, one at a time, while the boats bobbed and the ladders swayed. The landing craft quickly retracted and the second wave hit, then the third.

Low visibility and currents made for a certain amount of confusion and mingling of landing waves, both on Red and Blue Beaches. But the assault troops did get ashore, and in most instances company officers and veteran NCOs soon restored a semblance of order. What counted was that the Landing Force landed and drove inland from the two beaches in accordance with its mission.

Roaring down through the overcast, Corsairs raked the objective areas with machine-gun fire 50 yards ahead of the assault troops. On the left of Red Beach the troops of 1/5 were pinned down at first by fire from a Red Korean bunker, but one platoon of Able Company, advancing on its own initiative, surprised the enemy and captured Cemetery Hill along with a whole company of North Koreans ten minutes after landing.

On the right of Red Beach, the attack on Observatory Hill was delayed by trouble in the form of mixing of waves due to smoke, inexperience of boat crews and lack of rehearsal. Two companies of 2/5

landed in the wrong beach zones, and the attack on the dominating height got off to a late start.

This loss of momentum, with darkness imminent, seemed to give new hope and courage to the Communist defenders of Observatory Hill. They opened up with machine guns while mortar shells came from farther back in the city.

For the first time the Red Koreans were showing signs of putting up a stiff resistance—just as the first of the eight Large Sedentary Targets crossed the line of departure and went plodding through the dusk toward Red Beach. It was now 1830, H plus one hour, and the time had come to beach the supply vessels.

No one in JTF-7 was more apprehensive at this moment than Control Officer Schneeloch, who had signaled the LSTs to make their approach. No one knew better than this Navy veteran what could happen when an LST went up in flames. Watching the mortar bursts in the water and the enemy's muzzle flashes on Observatory Hill, he recalled all too vividly a scene of fiery death at Pearl Harbor on a May day in 1944. LSTs loaded with Marines for the Saipan operation were jammed side by side in West Loch. Suddenly one of the ships was ablaze. Tons of ammunition exploded almost immediately as the fire reached out to four other LSTs. Within a matter of minutes the five vessels were enveloped in a raging inferno. Shattering detonations rocked the entire naval base. Sailors and Marines, many of them flaming human torches, leaped into the water. Rescuers tried to save the stricken ships but the best they could do was to move other LSTs out of danger.

Schneeloch knew how fast the thin-skinned vessels could become fire-traps. He had taken part with the scorched rescuers that May day at Pearl Harbor when hundreds of casualties were incurred in one of the worst disasters of American naval history.

The potential for catastrophe at Inchon on 15 September 1950 was even worse. After the LSTs reached their narrow berthing space, one mortar round, a single machine-gun burst, could set off hundreds of tons of gasoline and ammunition. Maneuver and retraction were out of

the question; the eight Large Sedentary Targets could only remain beached until the high tide of the following morning—if they managed to survive that long. And in case of disaster, there were not the facilities for fire-fighting and rescue which existed at a great naval base like Pearl Harbor.

Such grim possibilities, of course, had not been overlooked by the planners. But they placed their faith in the often-demonstrated ability of the US Navy to generate the irresistible force which moves the immovable body.

Thus it was a contest of US Navy tradition against a bristling array of calculated risks when Lt Tinsley and his LST 859 led the column of supply ships heading toward Red Beach. With him on the bridge was LtCdr James C. Wilson, who had over-all command of the eight vessels for the landing.

Approaching the sea wall at 1835, the ship ran into heavy enemy mortar and machine gun fire. The gun crews, straining their eyes into the murky dusk, could make out Marines on the beach and muzzle flashes on the misty high ground beyond. They opened up with 20mm and 40mm fire, spraying not only Observatory Hill but the right flank of Red Beach as well. Some of the shells ripped into troops of the 2d Bn of RCT-5 who had just landed. One man was killed and 23 wounded as the Marines raced for the sheltering walls of the Nippon Flour Company building.

LST 859 eased into her berth at about 1840, guns still blazing. Close behind, LSTs 975H and 857 were also shooting as they beached to port a few minutes later. On LST 857 gun crews of the No 1 and No 6 40mm mounts directed their fire on the high ground to the left front—Cemetery Hill. The stream of shells chased the Marines from the top of this captured objective to the slope facing Inchon. There they were caught flat-footed by an enemy machine gun firing from a building on Observatory Hill. Luckily, a 40mm round from either the 859 or 975H obliterated this Red Korean position with a timely direct hit, and the Marines got off without a single casualty.

Trailing fourth in the column,



Tank platoon from Antitank Company loads aboard LST at Wolmi-Do.

LST 914 grated to a stop at the sea wall with its weapons silent. Lt Holzhaus had received orders not to fire "... at any targets ashore or in the air." Glowering from his exposed position on the bridge, the rugged old "mustang" saw to it that the orders were obeyed.

The fifth LST to land was Trapp's 973. He too had forbidden his men to fire. As the ramp of this vessel started down, a mortar explosion dislodged several Marines perched on top. They fell to the beach beneath the descending steel door, but it was checked in mid-air just short of crushing them.

It was now about 1845 and nearly dark. The crowded waterfront presented a scene of seeming, rather than actual, chaos. Marines had boarded LST 859 and yelled to the crew to cease firing. Then they helped themselves to ammunition and ran off toward Observatory Hill. Another group of assault troops roared indignation as the men invaded LST 973. Trapp refuted their charges by inviting them to feel the cold barrels of the ship's topside guns.

The last three supply vessels, LSTs 883, 898H and 799, had crossed the harbor safely and beached by 1900. Not all of the Red Korean mortar rounds were falling wide of the mark, however, and the crucial stage came when all eight Large Sedentary Targets were lined up so

closely that it would be difficult for an enemy gunner to miss them.

LSTs 975H and 857, the only ships besides 859 that had fired, had taken hits during the approach and while in their berths. Enemy bullets killed one sailor and wounded another at the No 2 mount on the 857. Some of the fuel drums were punctured but crewmen managed to check the spouts of gasoline before explosions occurred.

On LSTH 975 a mortar explosion wounded one man just as unloading began, and another Communist missile felled a sailor on the 859. But the most seriously hit of all was LST 973. A mortar round blasted the forward weather deck on the port side and fragments ripped into the fuel drums. Gasoline gushed out in every direction. Within seconds the whole forward deck was awash. Then a second shell exploded in the same area, penetrating one of the troop compartments in the well. Gasoline seeped below decks into the very heart of the ship.

LST 973 was now a potential volcano, awaiting only a spark to set off the eruption. Damage control teams flashed into action with high-pressure hoses. Trapp ordered all electric motors and equipment turned off. Sailors sealed off the damaged troop compartment immediately. Tension soared as the crew forced the pools of gasoline over the side with powerful salt-water jets.



Invasion ships rest high and dry in Incheon Harbor.

One tracer bullet during those anxious moments could have meant flaming death for every ship on the beach.

The officers and men of LST 973 won their fight against catastrophe. Seven of the crew were cut down by enemy fire but the remainder stuck to their exposed stations and cleared the deck.

To starboard of Trapp's imperiled vessel, LST 914 had taken several hits from enemy small arms. One machine-gun burst started a fire amidships near a truck loaded with ammunition. The danger was heightened when fragments from the mortar explosions on LST 973 whirled across the deck. But fragments and bullets be damned! That was the watchword on LST 914 as Marines and sailors pitched in without hesitation to smother the flames. And though the ship was hit several more times, the pressure never again became acute. Nor were any of the other LSTs gravely threatened beyond the incidents already described.

Marines of the 1st and 2d Bns of RCT-5 secured Observatory Hill in the darkness at about 2000 and tied in for the night. Messages were also received that units of RCT-1 had encountered only light opposition after pushing inland from Blue Beach.

Another great amphibious assault operation had been added to the two hundred in the long history of the Marine Corps. With all the main objectives of D-day secured, the situation on the Incheon waterfront settled down to the normal organized tumult which characterizes the unloading stage of every amphibious landing.

It remained now to unload 4,000 tons of cargo and retract on the

morning high tide, so that other LSTs could land more supplies. This was the responsibility of a logistical task force headed by the commanding officer of the US Army 2d Engineer Special Brigade and composed also of the Marine 1stSPBn and 1stCSG, with the 7th MTBn attached.

Soldiers and Marines worked all night under floodlights, paying no attention to the scattered small-arms fire which continued until dawn. So cramped were the confines of Red Beach that cargo had to be stockpiled wherever space could be found. Tactical dumps were established later, but the great object that first night was to get the LSTs unloaded.

There were times, however, when the trend of beach traffic was reversed as a jeep drove back over the ramp of an LST with a wounded Marine. Casualties of the Landing Force on D-day amounted to 20 killed, 174 wounded, and a single death from wounds. This last statistic is significant, since most of the wound casualties were given first aid by the advance surgical teams of Red Beach and evacuated to LSTH 975 or LSTH 898 for immediate surgery when necessary.

These surgical teams had been drilled like football squads. Team No 2 on LSTH 898 received 95 wounded Marines on the night of D-day, many requiring chest or abdominal surgery, without the loss of a single man. Even a specialist in plastic surgery was available for facial wounds requiring an operation to prevent unsightly scars.

So successful were the Navy surgical teams at Incheon that they were recalled to Japan afterwards to become preceptors. And within a

year the number of teams had increased to 22 on standby duty in the Far East.

Returning to the logistical side of the Incheon landing, so much progress had been made by midnight of D-day at unloading the LSTs that completion of the task by daybreak was assured. The morning of D plus 1 found Red Beach operating according to schedule as the original eight Large Sedentary Targets retracted to make room for other LSTs bulging with supplies.

Surveys indicated that the tidal basin could soon be made operative without major repairs. Army engineers were already starting to round up Korean crews and rolling stock while repairing track on the Incheon-Seoul line. On D plus 4 the first supply train made a five-mile run with rations and ammunition for the advancing Marine ground forces. And during the course of the operation, 350,000 rations, 315,000 gallons of fuel, 1260 tons of ammunition and 10,000 troops were transported by rail in addition to the trucked and airborne supplies.

The moving of that logistical mountain had been given its first impetus by the eight bullet-scarred LSTs of Red Beach. Still, it is not likely that anyone paused to throw a salute to those floating warehouses when they heaved a rusty sigh and retracted on the morning high tide of 16 September 1950. Heroic stanzas are reserved for fighting ships, and writing an ode to an LST would be much like addressing a sonnet to a pregnant whale. Yet it may be, after all is said and done, that a battered and smelly old LST will be first to hit the beach on the shores of Valhalla while the cruisers and the DDs are left behind. USMC

The Marine Reserve

BGen W. T. Fairbourn
Director, MCR

ONE OF THE MOST CONFUSING FACTS of Marine Corps Reserve Policy—and understandably so—is the system by which eventual retirement is achieved. As I mentioned in an earlier column, service in the Reserve is not a path strewn with retirement credits; retirement must be earned through twenty years of active participation in reserve training.

Basically, a reservist must accrue a minimum of 50 retirement credits during his "anniversary year" to be credited with a year of Satisfactory Federal Service. Twenty such years are needed to make him eligible for retired pay upon attainment of age 60.

From recent observations, I have discovered that many of our younger reservists, the majority of them highly qualified and motivated, have little conception of the Reserve retirement plan. We have set out to alleviate this situation with a briefing program at each post and station where reservists are being released from active duty. By reaching these personnel before their release, we hope to retain many skills vital to a strong Reserve.

Membership in the Marine Corps Reserve is good for an automatic 15 credits a year. The remaining 35 credits necessary for a year of Satisfactory Federal Service may be obtained in a variety of ways:

- **Organized Reserve:** one credit for each 48 paid drills each year. Drills are held in multiples of two per day, a total of eight hours per two-drill meeting. These multiple drills are usually held either on one complete weekend or on two Sundays each month.

- **Annual Field Training:** one credit for each day during the two weeks of AFT conducted by organized units.

- **Volunteer Training Unit:** one credit for each meeting attended.

VTU's meet a minimum of 24 times a year at a time and place selected by the unit commander.

- **Correspondence Courses:** reservists may earn retirement credits through correspondence courses furnished by Marine Corps Extension Schools, Quantico, Marine Corps Institute, or correspondence schools administered by other branches of the Armed Forces. The number of credits vary with the type and length of available courses.

- **Active Duty for Training:** somewhat restricted due to budgetary limitations. This can be formal schooling or on-the-job training. A credit for each day of active duty.

- **Training Assistants:** each summer, about 75 reserve officers and some senior NCO's are selected by the Commandant to assist the staffs of bases where organized reserve units train. These training assistants get one credit for each day spent on active duty, normally from 60 to 90 days during the summer.

- **Boards:** for each day a reservist serves on a formal board, he gets one credit.

- **Active Duty:** during periods of extended duty, one credit for each day.

- **Appropriate Duty:** this can be certain specified duties in connection with an Organized unit or a

VTU; or it may be such duties as recruiting, office procurement, or public relations, performed by an individual reservist with his District Director's knowledge. This is perhaps the broadest category of all, but in all cases it earns the Reservist one credit for each two-hour period of duty.

From the above programs, each Reservist may select his own means of maintaining his military proficiency. Reserve retirement at age 60 is his reward for the long years of readiness to serve the Corps if needed.

When a reservist has completed at least 20 years of Satisfactory Federal Service, he can compute his retirement pay as follows:

(1) Divide by 360 the sum of ALL points he has earned during his federal service.

(2) Multiply this by 2½ per cent or .025.

(3) Multiply this figure by the monthly base pay and longevity pay that he would receive for active duty in the highest grade, permanent or temporary, satisfactorily held in any service during the entire 20 or more years.

(4) The answer will be amount of retirement pay he will be eligible to receive each month after reaching age 60.

USMC



Cherry Point: CMC inspects MARTCOM summer training.



OBSERVATION POST



This department is for new, constructive ideas. They may be controversial; they must be short. Payment at regular rates on publication.

Corporal—A Rank Not an Affliction

By 1stLt J. F. O'Connor

THE CORPORAL IS THE MOST MALIGNED man in the Marine Corps. He has been accused of a multitude of sins. He has been labeled a defender and an apologist for his subordinates. He has been declared guilty of everything but being a small unit leader.

The sergeant affects a weary expression and declares knowingly that the corporal isn't what he used to be in the "Old Corps." But then, except for griping, what is the same? We are about to adopt a successor to the M-1, and the old timers still lament the loss of the '03.

Disillusioned platoon commanders deplore the fact that the corporal does not conform to the Basic School image. But, such is life outside the Ivory Tower.

Taking their turn at bat, company commanders grumble and complain that the corporal wants status but not responsibility. But, how often do company commanders delegate any authority or responsibility?

Strangely enough, some of our finest Marines have been corporals at one time or another. Listening to conversations in our company or battery offices, however, one finds this hard to believe.

If the accusations were true, they would not, or should not, have been promoted. Consequently, if any serious fault actually exists, it probably lies with the corporal's superiors.

The military life happily conduces to the formation and growth of strong friendships. Privates or Pfc's form as strong bonds among themselves as their superiors do on their own levels. Unfortunately, but understandably, young Marines sometimes lack enough experience to separate friendship and leadership and do both justice.

Give him a fighting chance to prove himself. Consider this plan. Upon his promotion to corporal, transfer him to another company or battery within the same battalion. An intra-battalion transfer will serve to divorce him from his lower-ranking buddies.

The Roman legions successfully used such a system for 2,000 years. With each successive promotion, the soldier was transferred to another outfit. By the time he became C.O., he had returned to the unit in which he had started as a private.

I advocate a limited version of the Roman plan, one applicable to enlisted Marines at their first promotion.

In a relatively new environment, the new corporal will naturally seek the company of his peers. Among comparative strangers, he will assert himself. He will tend to perform as an aggressive leader without a conscious, or unconscious, fear of losing old buddies or of being laughed at by his old cronies, salty Pfc's.

The transfer from H to E Co of the same battalion imposes no serious administrative load on anyone. Furthermore, the exchange of newly-made corporals will insure that no one company or battery gets the worst of the deal. Reciprocation will generate the flow of hard-charging young Marines throughout the battalion.

A change of scenery, even an intra-battalion one, will afford the young Marine experience. Working under different men with varying policies, his overall background will be enhanced.

Even with such a system, the Corps cannot leave the corporal at this point. To help the small unit leader do a better job, we must keep him well informed. Since he immediately directs the men who take the hill, the corporal must be as well informed as any man in the outfit, regardless of rank.

Take time out and tell him exactly what is wanted. Make sure he gets the word and understands it, but do not stop there. Quiz a few corporals once in a while. If they don't have the word, certainly their subordinates do not. Enforce briefing all the way down the ladder. An outfit that has the word will also have high morale and general combat effectiveness.

Frequently, the corporal is designated to attend one school or another. Too often, at all rank levels, we allow personal pride to influence our selection of men for different schools.

Don't send your best man; he probably knows and practices much of what will be taught. Instead, strengthen the weak links.

An outstanding Marine sent to a school to enhance the reputation of his Co, Bn or unit, does the Corps little good. Admittedly, it is gratifying for a commander to see one of his men score a first at the Division NCO Leadership School. The Corps benefits far more, however, if a merely satisfactory Marine is developed into a good or an outstanding one. Send him to learn and to improve, not just to impress or to enhance our own reputations.

We discuss the problems of Staff NCO's and Officers endlessly. The Staff NCO may well constitute the backbone of the Corps, but without the corporal and his subordinates there is no body for that backbone to support. The time has come to worry less about the chiefs and more about the Indians.

In an outfit as small as the Corps, no one rank group can be overlooked. Every man must carry his share of the burden. Help the corporal; he wants little more than the chance to be what he enlisted to be, a hard-charging Marine.

Don't do something about him. Do something for him. USMC

13 B University Terrace
Columbia, Missouri

A Better Way . . .

To Remove QM Shine

By Sgt J. R. Phaneuf

MANY HOURS ARE SPENT REMOVING the coating from buckles and emblems with steel wool, Brasso or Blitz cloth. Try using fingernail polish remover. The coating flakes off with ease and the problem of those "hard to get at" spots is gone. USMC

Officer Selection Office
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Marine Corps Gazette • September 1961

How to Build Up the "2": Step No. 1.

By Maj W. J. Davis

IMAGINE YOURSELF AS PRESENTLY FILLING the billet of an FMF battalion commander. Since you want yours to be a highly trained, hardcharging, tactical organization, you know that a well-grounded S-3 is your first staff requirement.

After you have filled the S-1 and S-4 billets, then, and only then, will you concern yourself about the remaining member of the executive staff—a sharp "2."

About the only gents who will vary the foregoing will be former or "professional S-2" types, each of whom will mend his ways the very first time that his regimental CO blasts the battalion's training, personnel, or logistics functioning.

All of this is very fine until we delve into plans and training for possible nuclear warfare. We realize that the Intelligence Officer has become increasingly more important as we tactically spread our already numerically meager forces over more and more landscape. That which long before should have become quite obvious now becomes more than obvious—the "2" must be one of the best trained battalion staff members in wars of the future.

Normally, however, the "2" is a young lieutenant whose background consists of Basic School plus possibly three or four months with a rifle platoon. Then he is hit with this relatively "dreaded" assignment.

Why "dreaded"? Because, in peacetime, that is precisely what it is. From experience recently gained as a Battalion S-3 and a Regimental Asst S-3, this writer offers a self-evident solution: make the S-3 also the S-2!

Yes, make the S-3 also the S-2 with an Asst S-3 and an Asst S-2. This is the only way in which you will immediately bring much-needed prestige to the position of the intelligence officer on the true working level of the Corps. This is also the only way you will cause the peacetime (or wartime) "3" to supervise fully the training of the dreaded S-2 section as tightly as he does the rifle companies.

It will work! Perhaps this may appear to resemble the old adage of *if you can't beat 'em, join 'em*, but it is not as fantastic as it may first appear. Remember that the usual S-3 is a recent Junior School graduate while the S-2 is a recent Basic School graduate. Thus, professional guidance from the "3/2" to his now Assistant "2" would be a continuing process, both in intelligence and overall staff procedures.

Lastly, let's not overlook the fact that it is a rare FMF battalion tromping around the boondocks these days which is not pretty much run by the S-3. Of course the CO makes the final decisions. But, the multitudinous nuts and bolts involved around-the-clock cause a fast-functioning "3" to rely on his own initiative a good portion of the time.

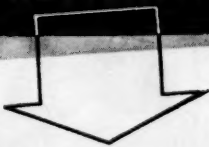
As long as this is true, and as long as the "3" is decidedly senior, and like-

wise the "1" and the "4" are also usually senior in billet grade and/or experience to the "2," we will have this problem. The only realistic way to solve it appears to be combining the "3" with the "2." This will result in this proposed immediate increase in the intelligence officer's prestige and functional operation with no increase in T/O personnel, or the previously senior side of the new combination will undoubtedly want to know the reason why! USMC

(Continued next month)

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Better Combat Intelligence

By Sgt Peteris J. Perkons

MUCH HAS BEEN SAID ABOUT improving combat intelligence within the Marine Corps. Time and time again we find ourselves with the same old problems. The very simple functions of combat intelligence seem to be our frustrations. Granted, we need improvements, but, may I ask, where do we begin? Why not try some old and not so "missile age" solutions? Perhaps a refresher quiz with ready answers will shed some light on the problem. The number of answers to any of the questions may very well be astronomical. However, let's select possible answers and see if they help us toward better combat intelligence.

When was the last time any on-the-job training was conducted within your section? A week, month, or six months ago? Perhaps the time is ripe for more training.

What training has been accomplished previously? What subjects were not included? Based on your observations, what training does your section lack? Itemized listing of answers to the last three questions will give a clear pic-

ture of your section's training status. In addition, this list will be a handy guide for determining what training is required. The priority for instruction on individual subjects is up to you.

How much time does your section's normal work take daily? Are there slack periods during morning or afternoon hours? How much time does the section spend for coffee breaks and "bull sessions?" Nine times out of ten you



will find you have time available for training. Time to be spent on individual subjects is up to you.

Who is best qualified to supervise training and in what subjects? Can you do it yourself in all the subjects you have selected? If the answer to the last question is no, it is time to sit down and start paging through the manuals again. You should know something about the whole thing yourself. Keep in close touch with your section's training. The best way is to conduct some of it yourself. Give your NCOs a chance to instruct and supervise training. Have all your personnel participate when possible. Also, try to include "know it all" personnel. They can always learn something new.

How is training to be conducted? For best results, minimum of lecture time and maximum of practical work should be the basis of your training program. Most personnel have been exposed to lectures or study material pertaining to the subject. Their real need will be to refresh their memories with plenty of practical work.

Results of your training program will be put to the test in the field. On the basis of your section's performance you will be able to plan additional training as necessary. Finally, don't get involved making wall charts to keep track of this training. A few entries in a notebook are just as effective. Besides, it will permit your draftsman to get in on the

training program.

When was the last time you visited your subordinate or higher headquarters intelligence sections? Personal liaison goes a long way toward ironing out little snags that occur in or out of the field. Confusion in matters of policy, procedures, or formats of printed forms can be one of the frustrations encountered in the field. Effective personal liaison often eliminates most of the problem.

Do all your personnel understand contents of the intelligence SOP, including procedures and policies governing intelligence? Take the trouble to find out. If not, it is a good idea to get together and brief them. They will know and understand their work better, and you will have better assistants.

How up to date is your unit's intelligence SOP? This is important. Your subordinate units and other staff sections within your unit do their part in the overall command intelligence effort in accordance with this document. Up to date SOP helps toward better intelligence functioning within the command. It should be revised without fail when important changes in policy or procedures occur.

Do your personnel understand the intelligence annex for a field problem? Understanding of what, why, and how by personnel of your section during a field exercise is important. A brief knowledge of the intelligence annex helps them understand what they are doing, what the intelligence play is and how it will be accomplished. Their work will have a little more meaning. Take the trouble to sit down and explain highlights of the annex before operations start.

What do you take to the field? This may have no meaning for most S2's. But, how many times have you run short of forms you needed? Or, the wrong forms were packed in lieu of those used for the problem? Unnecessary trouble and confusion can be avoided by careful planning. Make sure you pack what you need and as much as needed. Don't load things that are "just a good idea to take along." For example, don't take forty candles if you will have need for only ten at the most. The others are extra weight you will have to lug around. Plan on everything to go into one field chest. Pay careful attention to maps and map boards. Too many or not enough can be a frustration.

Try some of the above solutions and see if your section does any better. Better yet, if you find better answers to any of the questions let us know about it so all of us can benefit.

USMC
HqCo, 5th Marines
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It Is Recommended

By CWO E. A. Pike

RECENTLY AN OFFICER I KNEW declined to endorse and forward a letter containing recommendations concerning one of the smaller Marine Corps units. His comment, "I'm not going to tell the Commandant how to run his Marine Corps."

The officer concerned should have known better. His position could have been supported by one of two beliefs—that the Commandant is omniscient, has complete knowledge of every detail of the Corps, or that the Commandant would regard as impertinent any suggestions for improvement which might be tendered from lower echelons. Neither one of these beliefs has any validity.

The Commandant is necessarily remote from the working Marine Corps. He cannot establish direct control over every function of the fighting and supporting units. His concern, his perspective, is properly with the entire entity. There are probably many unjustifiable situations in the Corps today of which the Commandant is not aware. There are better ways of doing some

Rebuttals to *Figurehead or Sergeant Major* (OBSERVATION POST, August) will be printed next month.

things, some things we shouldn't be doing but are, some things we aren't doing but should and some structures of personnel that were born of temporary necessity and blessed with continued existence by the grace of precedent. Many of these situations require CMC action for correction. But, he can't take corrective action unless he is aware of the situation.

I believe that the Commandant can effectively command only if he is given the intelligent support of all of us. Blind devotion is fine for dogs. For Marines a higher standard of allegiance is indicated—thinking loyalty. We are responsible for correcting any untenable situation that comes to our attention. If we do not have the authority to take the indicated corrective action, then we must bring the situation to the attention of the commander who does have the authority.

That the Commandant might be offended by recommendations originating in the field is preposterous. We are all working to improve the Corps as a fighting instrument. Any constructive suggestions are welcomed by CMC.

Some of the best ideas for increasing our fighting efficiency come from the lowest levels. Suggestions which are constructive, and which observe respectful terminology, could not possibly be construed as an affront.

Every Marine should be a thinking, observing individual, critical of himself, his outfit, and his way of doing

things. People who are interested in maintaining the *status quo*, until such time as they can ease into retirement, exist in an intellectual vacuum. Their contribution to the Corps is questionable.

Let's give CMC intelligent support, not dumb obeisance. If you see something wrong requiring the Commandant's action, let him know. You'll be helping him—and the Corps. USMC

8th Engr Bn
Force Troops, Lant
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Tender Leaf
TEA BALLS



THE SCHOOL SOLUTION

(Answers to questions on page 34)

NOTE: References designated at TIP (Tentative Instructional Precip), SM (Supplementary Material), and MCS-5 (Marine Corps School Publication), are manuals written by the staff members of the Marine Corps Educational Center as texts for MCEC schools. Copies are furnished with extension courses and usually may be retained by the student.

1 (c) Reference: MCS 3-34, figure 1. Rockets are organized into one section of three squads of two weapons each; machine guns have three sections of two squads of one weapon each.

2 (d) Reference: FM 7-10, paragraph 169. Retrograde movements, whether forced by the enemy, or ordered to support a different offensive plan, are classified tactically as a withdrawal from action, delaying action, or

retirement. A night withdrawal is governed by situational considerations.

3 (c) Reference: MCS 3-30, paragraph 35c (1). Where "squads on line" in the offensive is difficult to control, "three squads up" on the MLR in the defense simplifies platoon control, organization of the FPL, and contact with adjacent units.

4 (c) Reference: TIP (COS)2, Appendix B, paragraph 98; TIP (COS)4, Appendix A, paragraph 17a. The battalion tactical air control parties (TACPs) transmit requests for close air support to the direct air support center (DASC) on the Tactical Air Request Net. The counter air operations center (CAOC) controls the air defense activities in its sector. The Regimental TACP monitors the battalion TACP requests, but does not transmit on the Tactical Air Request Net

except to modify or cancel the request. The Tactical Air Direction Net is employed by the DASC or the requesting TACP to direct the aircraft flying the close support mission.

5 Two enveloping forces, a secondary frontal attack, and the reserve. Reference: TIP (J)4, paragraph 17a (5).

6 (c) Reference: LFM-4, paragraph 302c. Scheduled waves are those waves for which the times, places and formations for landing have been determined and specified. Non-scheduled waves are those waves which are neither scheduled nor on-call, which are expected to land prior to the commencement of general unloading. There is no landing category known as "as required." On-call waves are as stated in the stem of the question, hence c. is the correct answer.

7 (d) Reference: LFM 00 (Tentative), paragraph 230b (2). The term "Landing Force" is used to describe the highest troop echelon in an amphibious operation. The landing force commander is on a corresponding level with the amphibious task force commander, except during the movement to the objective area and the first stages of the assault. The term "Landing Group" is used to describe a subordinate command of the landing force, which, when established, is on a corresponding level with the attack group.

8 The scheme of maneuver and the fire support plan. Reference: TIP (J)4, paragraph 18c.

9 (d) Reference: LFM 00 (Tentative), paragraph 735a (1). The doctrine for amphibious operations specifies that the commander of the advance force is responsible for the pre-D-day air operations. When the amphibious task force commander arrives in the objective area, he assumes responsibility for the control of all air operations.

10 (b) Reference: MCS 1-6, paragraph 205. Under the organization prescribed by the Congress in the National Security Act of 1947, the role of each of the services is to provide forces organized primarily upon the basis of purposes, that purpose being command of the element in which it primarily operates. The doctrine of the Armed Forces General Staff was explicitly rejected, as was the recommendation for the type of forces mentioned in (c).



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PROFESSIONAL SCRAPBOOK



Triggersqueeze On Sniper's Ridge

A GUN, SHARP EYES AND PLENTY OF patience, that's what makes a good sniper.

Guns and sharp eyes are commonly found in armies, but what about patience? Orientals are known for their patience and I can attest to it: I studied Chinese snipers on Sniper's Ridge in Korea. To do it I needed a gun, sharp eyes and more patience than they had.

Observing was really my main job, because I was a scout observer. Sniping I developed as a sideline, but the thing grew on me. By the time I left my observation post—seven weeks later—I knew my sniping Chinese opponents well enough to ghost-write diaries for them. Some ended with an obituary. There were no notches on my gun, however, because it was government property. Besides, it had no wooden parts. I sniped with a machine gun.

Sniper's Ridge was the name for a mountain about 3,000 feet high and a mile long. It was barren and rocky. Artillery had razed the scattering of craggy pines that had been on it at one time. On a parallel-running ridge was my observation post, facing the center of Sniper's Ridge. The only branching ridge that came off Sniper's Ridge made a dip and came up again to end under the muzzle of my machine gun. That connecting ridge was no man's land during the day. Because it was also the easiest approach for a night attack, we had criss-crossed it with wires hooked to trip flares.

A 20-power spotting scope and natural curiosity were my biggest assets during the first few days. I also had 7 X 50 binoculars; through these, Sniper's Ridge looked deserted. Yet, the Chinese were there and underscored their presence with well-aimed shots. We had casualties, but nobody had ever seen the Chinese snipers. Then I started using the spotting scope which was mounted on a tripod and therefore was steadier than binoculars. The 20-

power magnification enabled me to count noses on Sniper's Ridge, if there were any.

And suddenly Sniper's Ridge came alive.

I had been watching a mound of dirt for two hours and was ready to turn to the next spot a few feet away. Now I held my breath. Very slowly, a grey cap, and then a pair of eyes appeared above the dirt, stayed for three heartbeats, and then disappeared again just as slowly. I thought it was all over. Suddenly head and shoulders of a Chinese popped up, he jerked up a rifle, fired four shots in my direction, and was gone again. The bullets hit far to my right. The Chinese looked so big in my scope that I felt as if I had just been introduced to him.

From that moment on I started using the machine gun, an air-cooled .30 caliber, mounted on a tripod and sand-bagged down to prevent movement during firing. As a routine during the first few days in the new position, I had memorized or written down the elevation and deflection values for most possible targets or suspected enemy positions on Sniper's Ridge. Now it paid off. I was able to foretell the pattern of the impact of my bullets within the area of a pumpkin-sized target. Through my spotting scope I could see how the bullets tore into a target. I had become a sniper with a system.

Now, when I watched a spot, I had the machine gun aimed and locked on the same spot. I kept a finger on the trigger. . . .

Sometimes I would see the backs of Chinese bob up an inch or so above the rim of a communication trench as they were crawling through it. This was not large enough a target for a machine gun, a flat trajectory weapon. In such cases I called in and directed mortar fire.

The only time the Chinese were careless was during the first few minutes of dawn. They had to stretch their legs

after a long night in the foxhole. During the night they couldn't make fires but they usually made them when daylight came. One by one the Chinese snipers moved back to the reverse slope of Sniper's Ridge and smoke, barely visible through the scope, began to rise.

Sunset, on the other hand, was a dangerous time of the day for us. We were facing west and were half-blinded by the setting sun. The Chinese knew this and took advantage of it. Their sniping then was fast and accurate.

The Chinese on Sniper's Ridge were good snipers. They were better snipers than most Americans who faced them. Why? Mostly because they were very patient. But there was a way to beat them. I did it with a gun, sharp eyes and more patience than they had.

Konrad Winiacki

What It's All About

Professional Scrapbook is aimed at platoon leaders but there's information here for all Marines: Pertinent extracts from military books, a bit of Corps history, useful hints from experienced leaders, new trends in strategy. We run Scrapbook as space permits, welcome contributions from our readers. Payment on publication.

We Never Had It So Good!

Frigate
U.S.S. United States
December 18, 1798

The Commandant of Marines
Sir:

I have the pleasure of addressing you on the situation of the detachment with me. Mr. Darley has received six recruits, and I am sorry to report they have the same appearance as the former squad, composed chiefly of idiots and invalids.

Of those first sent on, one is now discovered to be ruptured; of the latter; one subject to fits, another disabled on his feet, whilst a third is ordered on shore by the request of Captain Barry under certificate of a physician as dangerous to the crew.

FRANKLIN WARTON
Capt. Marines

Submitted by Maj E. J. Markham, Jr.

Who's Grey?

Did you ever wonder why battalion commanders are grey? It's not the big things! It's an accumulation of little things such as these which happened to a battalion commander on maneuvers recently:

- The disappearance, beneath the waves, of \$93 worth of M1 Rifle because a Pfc thought he had a better way of slinging his rifle when going over the side.

- A sailor didn't take the trouble to correctly hitch a line to \$508 worth of PRC 10 radio. It, too, made a sickening splash as it disappeared beneath the blue Atlantic.

- A half-scared sentry who yelled out the reply to an equally shouted password, permitting the aggressor quietly lying in the dark to have the *word* minutes after arriving.

- Another sentry cupped a flashlight in his hand as he made his night rounds, permitting the aggressor Lt, padding along behind, to reconnoiter the CP area.

- The wise guy aboard the LCM who paid no attention to a warning to stay behind the vehicle when the Mike boat beached. A wiser lad was carried through the surf—with two broken legs.

- The LVT driver who forgot to look at his oil gauge—he remembered when the engine threw a piston and blasted the transverse hatch cover the length of the vehicle.

- Another LVT driver who, coming down a 75-foot hill, *thought* he had it in low gear. Result—a thrill ride to the bottom for his 23 passengers; four required evacuation to the hospital.

- The Corporal who didn't bother about receipts on special service property. Cost to the outfit—over \$200 in *missing gear*.

- The Sergeant in the Intelligence Section who packed photographs of the landing beach aboard another ship. These were to be used to brief boat coxswains.

- The Special Services NCO who carried along 12 boats, 12 engines and guess how many spare parts to keep them running for two months? Right, none.

- The CO of a Truck Company who brought along a total of one camouflage net to conceal all of his trucks during the exercise.

Col L. E. Hudgins, Jr.

Count and Account

Most administrative units keep their discharge certificates locked up in the company safe because regulations require it. However, when two blank honorable discharge forms recently turned up in a deserter's effects, none of the units in the area could say positively that the two forms hadn't come from their supply. None of the unit commanders had counted the certificates in their safes.

If discharge certificates are important enough to be kept in the safe, it seems almost self evident that they're important enough to count and account for in some manner. Count them and devise a simple accounting system; it's common sense.

The DD214 form properly made out is a negotiable instrument. With it an individual can receive many benefits from the local office of VA. We lock up public funds of disbursing and supply officers in safes, and post sentries to guard the safes. This is good and sound doctrine. Yet in many administrative units, the DD214 forms are kept on the shelf where anyone can take a handful.

A handful of DD214 forms properly made out and presented to the VA could use more public funds than are ever kept in a military safe. Once again, it seems only logical to count the DD214 forms, lock them in the company safe, and devise a simple system to account for them.

Col W. F. Prickett

It's in The Manual!

Paragraph 123: The forage ration for a horse is 14 pounds of hay, 12 pounds of oats, corn or barley, and 100 pounds of straw per month.

Paragraph 125: An officer not mounted may purchase forage for one horse kept for his own use, for which he will be charged cost, including transportation.

Paragraph 132: Fuel issued to troops is public property. Any portion not actually consumed by them shall be taken up and used in baking soldier's bread.

Paragraph 133: Fuel will be furnished to officers only in the month, and issued to troops only in the quarter, when due. The cheapest fuel at the place of issue will, all things considered, be furnished.

Paragraph 12: Necessary repairs to barracks and quarters will, when practicable, be made by the labor of enlisted men.

One complete rifle costs \$13.12.

All the above articles are true, taken from the Official Marine Corps Manual, "System of Accountability." Of course this manual is dated 1891!

Capt Edward J. Hukle

We need ideas for our new cartoon feature. . . .
IT ISN'T IN THE BOOK, BUT. Send them to
Gazette, Box 1844, Quantico, Virginia.
We pay 5 dollars on publication. →

IT ISN'T IN THE BOOK, BUT...



Thanks To —
Sgt M. H. Handelsman

Sherman and Crook

Ivan - by the Numbers

Soviet Population Statistics

The population of the USSR, as of 15 Jan 59, is 208,827,000. Although this figure would indicate, as claimed, almost a 10 per cent increase in the population since 1939, such is not the case. Taking into consideration the fact that, since the 1939 figures, the Soviet Union absorbed the peoples of the three Baltic states, the eastern regions of Poland and other regions, it is evident that, as a result of WWII, the Soviet Union per se, not only has not had a population increase in the past 20 years, but actually suffered a decrease.

The data on age composition of the population shows a large gap in the 10-15 year old age group, the direct result of a low birth rate during and immediately after WWII. 17,133,000 in 1959 compared with 28,365,000 in 1939, or a decrease of some 11,000,000. This is the group coming of working age during the current Seven Year Plan.

The figures also show that there are, now, some 20 million more women than men in the Soviet Union. More important, although the ratio of men to women for the "below 30" age group is evenly balanced, in the "above 30" age group, the ratio is almost 2 women to every man.

The statistics help explain the planned reduction in armed forces personnel strength and the previously effected educational reforms which emphasize "on-the-job training" at the expense of formal education. The Soviet Union has a manpower shortage. It will become even more acute in the course of the next ten years. Soviet authorities appear to be taking all possible steps to minimize the deleterious effects of this shortage on the success of their Seven Year Plan.

Soviet Officer-Enlisted Ratio

Military students will find the recently officially revealed figures on the officer-enlisted ratio in the Soviet armed forces rather astounding. On 19 Jan 60, Minister of Defense Marshal of the Soviet Union Malinovsky delivered a speech to the Moscow area officer corps, assembled at the Kremlin, explaining the provisions of the Soviet "GI Bill of Rights" for those officers scheduled to be released from active service as a result of the announced reduction of the armed forces personnel strength. He stated that officers constitute 25 per cent

of the armed forces personnel strength and that, as a result, some 250,000 officers would be released. This ratio of 1 officer to every 3 enlisted men in the Soviet armed forces is even more surprising when compared with the U.S. Marine Corps ratio of 1 officer to 10 enlisted men.

Several reasons can be advanced for this lop-sided ratio, indicating that the figures are probably not exaggerated. Many over-age officers are kept on the active rolls because of their outstanding combat records in WWII or their significant contributions to the post-revolution development of the armed forces. Units down to company-size units have political officers; political staffs increase in accordance with the size of the various units and headquarters. Officers are used as aircraft pilots, navigators, bombardiers and engineers. Heavy tank commanders are officers. The peacetime Soviet armed forces have a tendency to over-staff as a means of maintaining trained officer cadres, ready for wartime expansion. A large percentage of research and development personnel are officers of the engineer-technical services.

L. G.

Immediate Action

RADIO SET AN/PRC-6

IF OTHER STATION DOES NOT ANSWER—Check position of External-off-Internal switch. Turn volume control full on (clockwise). Listen for rushing sound in earphone.

IF RUSHING SOUND IS NOT HEARD OR IS WEAK—Loosen air valve. Listen. Remove and reinsert battery connector. Listen. Insert new battery. Listen. If still no rushing sound, set is defective.

IF RUSHING SOUND IS HEARD—Push Press-to-Talk switch. If rushing sound continues, set is defective. If rushing sound ceases, blow into microphone. New sound (sidetone) should be heard in earphone.

IF SIDETONE IS HEARD—Set is operative. Make sure distant station is within range. Move few yards, attempt communication again. If station still does not answer, contact him by other means to insure he is listening and has operative set on your channel.

IF SIDETONE IS NOT HEARD—Set is defective.

Combat Leader's Field Notebook
Published by Stackpole Co., 1960, \$2.00
Bookshop Code # AU-11 (\$1.70)

For Hammerheads: Hammers

An old warrant officer once told me this story:

When I was a young sergeant in the days just prior to WWII, I got a dozen or so new recruits into my section. They were a rag-tag bunch—nothing like the highly-trained professional Marines I had always had in the section before.

I made a loud remark one day that nobody could be expected to get a good job done when he had such lousy material to work with.

My section head, who was an old warrant officer himself at the time, overheard my remark. He called me aside and made some observations I will never forget.

"Sergeant," he said, "have you ever seen a carpenter's tools?"

"Yes, sir," I replied.

"Well, then you know that these tools are pretty crude affairs. Most of them were invented centuries ago and haven't been improved on much since."

I had to agree.

He went on, "The carpenter knows how to use these tools. He knows how to sharpen them and how to keep them in tip-top working condition. And he always selects just the right tool to do the job at hand. He never uses a hammer to do the work of a screwdriver or a chisel to do the work of a plane."

Again, I had to agree.

"The result of this," said the old warrant officer, "is that with his few crude tools the carpenters can build a beautiful house."

I took another look at my crude recruits and started using the hammer-headed types for hammering jobs. And I sharpened up the sharp types and used them to put on the finishing touches. My section soon worked better than any crew I had ever had before.

Capt W. W. Grant

★ General Officers ★

Temporary Promotions to MajGen

Bowser, A. L. Aug
Kier, A. R. Aug
Masters, J. M., Sr. Aug
Rottet, R. K. Aug
Wade, S. S. Aug

Temporary Promotions to BGen

Bowman, G. S., Jr. Aug
Butcher, J. O. Aug
Dobbin, J. F. Aug
Fontana, P. J. Aug
Kyle, W. B. Aug
Masters, J. H. Aug
Tompkins, R. McC. Aug

Recent Command and Staff Assignments

Fontana, P. J., DepDirOp, J-3 Op
Directorate, Joint Stf
Masters, J. M., Sr., Inspector General
Van Ryzin, W. J., C/S, CINCNELM

Colonels

Temporary Promotions

Burgoyne, W. R. Aug
Eisele, H. A. Aug
Mc Laughlin, J. N. Aug

Temporary Promotions, Reserve

Langenfeld, H. C. Aug

Transfers

Axtell, G. C. 9907
Fr 1stMAW WDSep
To 2dMAW
Millichaip, P. H. 9908
Fr Stf CincPac WDSep
To 1stMAW
Moser, R. D. 9907
Fr HQMC WDSep
To AirFMFPac
Ridge, T. L. 9906
Fr MCS Quant WDSep
To Ciudad Trujillo

Deaths, Retired

Marshall, W. M. 16Jul
Denver Colo

Recent Command and Staff Assignments

Bangert, D. A., CO MAG-32, 2dMAW
Barnes, W. E., C/S, MCB CampPen
Campbell, W. R., CO, MCAS Kaneohe
Chamberlin, W. C., CO H&SBn, MCB CampPen
Clark, J. H., Overhaul & Repair Off, MCAS CherPt
Doyle, E. J., CO MAG-14, 2dMAW
Drake, C. B., Asst C/S G-1, HQMC
Eisele, H. A., Management Engineer, MCAS CherPt
Fisher, A. W., CO MWHG, 2dMAW
Hudgins, L. E., C/Amphibious Warfare Presentation Sec, MCEC, MCS Quant
Humbert, W. C., CO MAG-16, 1stMAW
Lowell, A. C., CO MCAF Iwakuni & MW8G 17, 1stMAW
Magruder, M. M., Dir, 12thMCRD
Moss, R. I., C/Supporting Arms Sec, MCEC, MCS Quant
Nicolay, S. S., G-3, 2dMAW
Parks, H. C., CO H&SBn, MCRD SDiego
Reid, L. D., CO H&SBn, Camp Smith
Tinsley, J. H., C/S, MCRD PISC
Worden, W. W., C/Plans & Inspection Sec, MCEC MCS, Quant
York, H. A., CO MCAF Futema Okinawa

★ Lieutenant Colonels ★

Selected for Promotion to Colonel

Amerine, R. R.
Armstead, R. C.
Bachhuber, A. J.
Beck, D. M.
Berteling, J. B.
Boyd, C. A.
Bross, R. W. L.
Callender, J. M.
Caputo, A.
Carey, R. E.
Carlson, E. C.
Casserly, F. G.
Cave, T. F.
Coreghino, A. D.
Conger, J. E.
Cupp, J. N.
Demosthenes, T. A.
Glick, J. E.
Grider, R. Q.
Gunter, H. G.
Harris, L. P.
Hayes, H. A.
Hedesh, A.
Hill, J. T.
Jensen, O. T.
Jones, A. L.
Knapp, H. E.
Kramer, V. R.
Kunz, C. M.
Low, S. D.
Lund, A. A.
Lundin, W. M.
Morris, W.
Mueller, E.
Myking, B. G.
North, R. E.
Olson, H. C.
Platt, F. M.
Poggemeyer, L. E.
Rallsback, E. H.
Raymond, H. D.
Rhoades, J. R.
Richards, R. M.
Riley, R. E.
Roach, M. E.
Ross, J. F.
Sabatier, H. S.
Siegel, E. A.
Spiker, T. F.
Stegemerten, W. W.
Stewart, F. R.
Stimson, E. M.
Wagner, L. W.
Warren, J. L.
Williams, J. E.
Woessner, H. J.

Temporary Promotions

Brooks, D. H. Aug
Doehler, W. F. Aug
Kew, G. D. Aug
Mize, C. D. Aug

Temporary Promotions, Reserve

Bushong, H. L. Aug
Cartoski, E. J. Aug
Foster, F. A. Aug
Hollowell, F. M. Aug
Rose, A. A. Aug
Wleczorek, V. Aug

Transfers

Crossman, R. B. 0302
Fr Pt Mugu Calif WDAug
To Monterey Calif
Driftmier, J. F. 7331
Fr BuWeps
To Univ Md
Gilsen, L. A. 0302
Fr MCS Quant WDSep
To NAG Korea
Lloyd, W. F. 0302
Fr NAG Korea WDSep
To MCRD PISC
Magill, J. H. 7302
Fr 2dMAW 20Sep
To 7th Fleet
Midkiff, L. E. 7335
Fr 2dMarDiv WDSep
To 2dMAW
Morton, D. K. 0302
Fr Tengan Okinawa WDSep
To MCB CampPen
Phillips, J. H. 7304
Fr FMFLant WDAug
To MCS Quant
Roach, M. E. 0302
Fr MCS Quant WDSep
To 3dMarDiv
Sadler, M. O. 3002

Fr MB NB Phila
To 3dMarDiv
Ward, R. A. 7333
Fr HQMC WDSep
To Geo Wash Univ
Williams, G. L. 2002
Fr 3dMarDiv WDSep
To 2dMarDiv
Witt, F. X. 1302
Fr Okinawa WDSep
To MCB CampPen
Woods, R. 3002
Fr MCSA Phila WDSep
To Univ Pa
Zuber, J. W. 7335
Fr 1stMAW WDSep
To NAS Pncla

Retired

Boll, R. L. 0302
Wash DC 30Sep
Lockard, G. R. 2502
MCB CampPen 31Aug
O'Connell, J. L. 0302
NTC GLakes 31Aug
Williams, B. F. 1802
MCS Quant 31Aug

Recent Command and Staff Assignments

Andres, R. A., CO VMJ-2, 2dMAW
Augeri, R. J., Asst Comm-Elec Off, 1stMarDiv
Christie, W. R., CO 2dRectTrngBn, MCRD PISC
Dees, H. C., Asst S-3, MCAS Quant
DeLamar, R. F., I-1 6thInfantryBn, Houston
Edwards, J. R., Maint Off, MCRD PISC
Fribourg, L. E., CO 3dRectTrngBn, MCRD PISC
Harte, F. J., S-3 RectTrngRegt, MCRD PISC
Hughes, J. W., Comm-Elec Off, MCB CampPen
Kuhn, R. C., CO 2dBn 4thMar, 1stMarBrig
Manion, T. A., CO 7thCommBn, 1stMarDiv
Moriarty, J. A., DeputyDir, 8thMCRD
Stawicki, T. A., ExO H&SBn, MCRD SDiego
West, C. H., AsstDirRes, 8thMCRD
Wilkinson, F. R., CO 3dRectTrngBn, MCRD SDiego

★ Majors ★

A Selection Board headed by MajGen J. M. Masters, Sr., now in session, can pick 177 majors for promotion to lieutenant colonel. Promotion zone for unrestricted officers: Majs H. E. Roser, J. V. Booker. Zone of consideration: from Maj F. W. Earnest through Maj W. L. McCulloch. LDO promotion zone: from Maj D. L. Shenaut through Maj W. L. Mobley. Now over the "hump" this is the last year for token promotion zones; next year, majors of year group 1943 move into promotion zone. Selection board is due to report out first week in September.

Temporary Promotions,

Johnson, W. R. Aug
Monti, A. A. Aug
Smith, R. J. Aug

Temporary Promotions, Reserve

Davis, R. J. Aug
Hampton, O. W. Aug

WDSep
7333
WDSep

King, D. M.
Over, W. H.
White, W. F.

Transfers

Andersen, F. R. 2500
Fr 3dMarDiv WDSep
To 1stMarDiv
Armogost, W. I. 7300
Fr NAS Nrlms WDSep
To NAS JAX
Ball, V. E. 7304
Fr Beeville Tex WDSep
To Univ of Omaha
Belknap, E. W. 0301
Fr 3dMarDiv WDSep
To 1stMarDiv
Betterton, C. E. 2501
Fr 1stMAW WDSep
To 3dMAW
Borchering, C. L. 6001
Fr 1stMAW WDSep
To 2dMAW
Bradley, B. B. 0301
Fr 3dMarDiv WDSep
To 1stMarDiv
Brandon, L. H. 7331
Fr MCAS CherPt WDSep
To 1stMAW
Brown, W. P. 7331
Fr 2dMAW WDSep
To 1stMAW
Burnham, P. R. 7331
Fr NAS JAX WDSep
To MCAS El Toro
Carr, I. T. 3001
Fr MCS Quant By22Sep
To Geo Wash Univ
Church, C. H. 7304
Fr NAS Pncla WDSep
To 1stMAW
Collen, F. R. 7331
Fr 3dMAW WDSep
To 1stMAW
Cunningham, J. D. 0301
Fr Ft Meade Md WDSep
To NavMiss Haiti
Frew, J. C. 2501
Fr 1stMarDiv WDSep
To MCS Quant
Gardiner, J. C. 7331
Fr 2dMAW WDSep
To 1stMAW
Griffitts, L. W. 7301
Fr 1stMAW WDSep
To 2dMAW
Haars, E. R. 0301
Fr C Elliott SDiego WDSep
To MCRD SDiego
Hart, H. 7331
Fr BuWeps
To Univ Md By12Sep
Hughes, J. A. 7331
Fr BuWeps WDSep
To 1stMAW
Hyneman, J. R. 7331
Fr 2dMAW WDSep
To 1stMAW
Iungerich, S. 4001
Fr 3dMarDiv WDSep
To MCRD SDiego
Kelly, W. D. 7331
Fr 2dMarDiv WDSep
To 2dMAW
Kirkland, J. W. 3501
Fr 3dMAW WDSep
To NAS PaxRiv
Koehler, E. F. 7301
Fr 2dMAW WDSep
To 1stMAW
Larsen, R. J. 3501
Fr C Elliott SDiego WDSep
To FMFPac
Lavoy, J. H. 7331
Fr 2dMAW WDSep
To Univ of Omaha
Mansfield, G. S. 2501
Fr MCS Quant WDAug
To Pentagon
McCarthy, T. E. 3001
Fr MCB 29Palms WDSep
To 3dMarDiv
McPherson, G. D. 0701
Fr NAG Korea WDAug
To ForTrps FMFPac
Morris, R. D. 9901
Fr 2dMAW WDAug
To 5thMCRD
O'Callaghan, T. P. 0301
Fr MCS Quant WDSep
To 3dMarDiv
Pultorak, J. 7301
Fr 2dMAW
To FMFLant By29Aug
Reep, M. A. 0801
Fr HQMC WDAug
To 1stMarDiv
Salsar, C. A. 3001
Fr MCSC Barstow WDSep
To 3dMarDiv
Sherwood, J. M. 1801
Fr SandiaB NMex WDSep
To 3dMarDiv

Aug
Aug
Aug
Sonneborn, M. D. 3002
Fr Univ Miami
To MCSA Phila
18Sep
Tubbs, H. W. 0302
Fr MCS Quant
To MCB CampPen
WDSep
Vance, R. N. 3002
Fr HQMC
To 1stMAW
WDSep
White, J. D. 3002
Fr HQMC
To Geo Wash Univ
WDSep
Worley, K. M. 2052
Fr 2dMarDiv
To Pentagon
WDAug

Extended Active Duty

Brady, C. L. Jun63

Retired

Buss, W. J. 2502
3dMAW
31Aug
Mellwain, J. W. 1302
1stMarDiv
31Aug
Mellon, M. J. 3502
MCB CampPen
30Sep
Pearson, T. W. 3010
MCB CamLej
31Aug
Stanley, E. F. 2502
FMFLant
30Sep

Deaths

Wilgus, P. J.
USNH CampPen
19Jul

Deaths, Reserve

Yacopino, W. C.
Pittsburgh Pa
26Jul

Recent Command and Staff Assignments

Abbott, C. W., VolunteerTrngProOff,
1stMCRD
Blythe, C. W., Trng & OpOff, C-
EBn, MCRD SDiego
Britt, R. E., Asst G-2, MCAS Cher
Pt
Dicus, W. A., ExO 1stRectTrngBn,
MCRD PISC
Doxey, D. T., Asst G-1, MCRD
PISC
Engelhardt, L. J., CO H&HS, MCAS
Quant
Janiszewski, G., OinC, MCAS Hart-
ford Conn
Jackson, N. A., ISO, MCRD SDiego
Mars, W. G., Asst Dir for ServDiv,
MCSC Albany
Mock, M. S., ExO WMRectTrngBn,
MCRD PISC
Opeka, F. C., Adjutant MAG-14,
2dMAW
Twomey, D. M., CO 2dForReconCo,
2dMarDiv
Witzel, M. M., Head Maint, MCSC,
Barstow

Captains

Temporary Promotions

Mc Manaway, J. L. Aug
Vail, A. L. Aug

Temporary Promotions, Reserve

Abernathy, R. T. Aug
Adkins, J. M. Aug
Adolf, J. G. Aug
Andaloro, V. P. Aug
Anderson, W. E. Aug
Andrew, E. S. Aug
Apple, E. L. Aug
Aulenbach, W. H. Aug
Austin, H. E. Aug
Aylward, W. J. Aug
Backer, P. T. Aug
Bailey, C. C. Aug
Baker, H. O. Aug
Ballantyne, D. A. Aug
Balzer, E. J. Aug
Barfield, D. B. Aug
Barnes, A. M. Aug
Barron, G. A. Aug
Barry, D. L. Aug
Batliner, L. F. Aug
Becker, H. J. Aug
Benak, E. J. Aug
Berg, R. D. Aug
Berger, D. J. Aug
Bierman, O. A. Aug
Bishop, C. S. Aug

Bishop, R. M. Aug
Bowers, J. B. Aug
Bown, C. C. Aug
Boyd, R. M. Aug
Brewer, S. H. Aug
Bronson, J. A. Aug
Bross, W. O. Aug
Brown, L. K. Aug
Burger, B. F. Aug
Burke, D. M. Aug
Cameron, F. J. Aug
Capriano, M. P. Aug
Cassedy, K. H. Aug
Cassidy, J. A. Aug
Castillo, C. Aug
Cesano, J. Aug
Chaffin, J. A. Aug
Chapman, E. E. Aug
Choate, R. Aug
Chomicz, C. A. Aug
Clappier, D. P. Aug
Clark, E. A. Aug
Clark, R. M. Aug
Clayton, R. H. Aug
Cole, R. E. Aug
Collier, P. R. Aug
Combs, C. W. Aug
Conn, S. L. Aug
Connolly, R. D. Aug
Connor, M. W. Aug
Coyne, B. A. Aug
Crayne, J. W. Aug
Cribben, J. P. Aug
Crickman, J. A. Aug
Crocker, B. E. Aug
Crummer, D. B. Aug
Curran, J. J. Aug
Daubin, R. C. Aug
Day, J. W. Aug
Daye, B. A. Aug
Dean, J. O. Aug
Dement, K. L. Aug
Demoney, N. E. Aug
Deogny, F. D. Aug
Diamant, W. Aug
Diener, R. W. Aug
Dixon, L. D. Aug
Dodge, C. T. Aug
Dodson, R. R. Aug
Dorset, J. S. Aug
Driscoll, R. W. Aug
Dudeck, T. A. Aug
Dudley, W. H. Aug
Dunklau, R. E. Aug
Dunton, T. L. Aug
Eckhart, E. R. Aug
Edwards, M. R. Aug
Engel, M. S. Aug
Euler, E. R. Aug
Ewbank, D. D. Aug
Falater, F. L. Aug
Fenlon, P. G. Aug
Fenton, P. M. Aug
Ferrero, R. F. Aug
Ferwerda, R. K. Aug
Fitzpatrick, B. W. Aug
Flannery, D. J. Aug
Flynn, F. L. Aug
Foley, J. M. Aug
Frazier, C. H. Aug
Free, J. P. Aug
Fulfs, D. P. Aug
Gaillard, R. R. Aug
Galloway, R. D. Aug
Gallart, R. A. Aug
Garrett, A. J. Aug
Garrett, D. B. Aug
Gentile, H. C. Aug
George, H. A. Aug
Golden, P. F. Aug
Golemon, W. L. Aug
Gorham, R. W. Aug
Graham, A. L. Aug
Grant, E. J. Aug
Grant, J. R. Aug
Greene, S. J. Aug
Green, D. H. Aug
Green, J. B. Aug
Gruber, D. J. Aug
Hadden, F. D. Aug
Hagan, R. D. Aug
Hamrick, L. D. Aug
Harrington, M. H. Aug
Harrison, J. B. Aug
Havlek, W. J. Aug
Hawkins, D. E. Aug
Hayes, J. L. Aug
Hays, T. A. Aug
Helander, G. E. Aug
Heilrich, W. E. Aug
Henderson, N. A. Aug
Herdon, R. E. Aug
Hill, R. E. Aug
Hines, T. N. Aug
Hiotas, S. J. Aug
Hodson, T. D. Aug
Hogg, J. S. Aug
Holt, D. R. Aug
Hughes, E. L. Aug
Hunter, T. O. Aug
Jennings, T. R. Aug
Jiranek, J. H. Aug
Johnson, K. W. Aug
Johnson, W. I. Aug

Johnson, W. R. Aug
Jones, I. R. Aug
Jones, T. H. Aug
Jones, H. F. Aug
Jorgensen, H. P. Aug
Jorgensen, G. J. Aug
Joyce, D. K. Aug
Kahn, M. D. Aug
Kallita, W. J. Aug
Kastner, T. A. Aug
Kellogg, G. F. Aug
Kennedy, W. W. Aug
Kennelly, T. A. Aug
Kennedy, P. A. Aug
Kibbe, G. M. Aug
Kiehnle, W. H. Aug
King, A. M. Aug
Kirby, A. F. Aug
Kornegay, T. L. Aug
Laine, C. L. Aug
Land, S. J. Aug
Lawrenson, D. B. Aug
LeClaire, H. M. Aug
Lefever, H. L. Aug
Lewis, J. M. Aug
Lieberman, R. M. Aug
Liebscher, A. E. Aug
Lindsay, J. R. Aug
Link, R. G. Aug
Linn, F. B. Aug
Little, D. E. Aug
Lohmann, A. S. Aug
Lord, M. E. Aug
Lundy, C. F. Aug
MacDonald, R. F. Aug
MacHardy, R. N. Aug
Manogue, R. J. Aug
Masters, R. S. Aug
May, R. H. Aug
Mayberry, H. B. Aug
McAdams, R. L. Aug
McCleary, P. C. Aug
McConnohie, R. J. Aug
McCracken, R. A. Aug
McGhee, T. W. Aug
McGulrick, J. E. Aug
McGree, L. P. Aug
McGuinness, T. P. Aug
McKeag, J. R. Aug
Metheny, J. H. Aug
Miller, G. A. Aug
Monney, R. K. Aug
Moore, C. A. Aug
Much, H. G. Aug
Muir, W. D. Aug
Mulcahy, J. A. Aug
Mullin, J. R. Aug
Murphy, T. C. Aug
Myers, J. W. Aug
Nichols, W. R. Aug
Nielsen, J. M. Aug
Nimkoff, P. L. Aug
Norcross, C. O. Aug
Norred, C. V. Aug
Obrigawitch, T. Aug
Oliva, D. Aug
Oshea, G. F. Aug
Oshea, G. D. Aug
Owen, G. W. Aug
Owens, S. V. Aug
Pacini, E. J. Aug
Pehrsson, W. E. Aug
Pence, G. C. Aug
Person, L. H. Aug
Pestana, J. J. Aug
Peterson, B. D. Aug
Pitt, T. A. Aug
Poncin, R. A. Aug
Poole, F. W. Aug
Powers, J. R. Aug
Price, R. O. Aug
Quinn, G. M. Aug
Rabassa, A. O. Aug
Radcliffe, J. H. Aug
Ralph, J. K. Aug
Randall, J. W. Aug
Reed, V. S. Aug
Reilly, D. F. Aug
Reinsdorf, W. D. Aug
Renfrow, R. P. Aug
Reynolds, J. M. Aug
Richardson, W. D. Aug
Richardson, D. J. Aug
Riley, J. F. Aug
Risner, R. F. Aug
Roberts, W. F. Aug
Robinson, C. B. Aug
Robinson, W. P. Aug
Rodgers, C. L. Aug
Rogovin, M. Aug
Roos, J. P. Aug
Ross, F. T. Aug
Rowell, L. J. Aug
Sacket, G. F. Aug
Samuel, G. A. Aug
Santrach, P. Aug
Schaffner, H. T. Aug
Schrader, W. C. Aug
Schrader, C. W. Aug
Schultz, D. D. Aug
Schultz, R. L. Aug
Schwab, E. A. Aug
Scott, W. W. Aug

Selecky, J. A. Aug
Sell, C. G. Aug
Sentous, J. L. Aug
Shafer, S. G. Aug
Shaffer, H. W. Aug
Shaffer, R. L. Aug
Sheehan, D. F. Aug
Sheehan, D. A. Aug
Shields, J. F. Aug
Shope, J. R. Aug
Simich, J. Aug
Skaggs, H. Aug
Skinner, W. G. Aug
Slack, J. D. Aug
Sledge, L. F. Aug
Smyth, E. T. Aug
Snyder, V. S. Aug
Sobie, M. A. Aug
Stahler, R. M. Aug
Stephens, A. Aug
Stevens, W. W. Aug
Stevenson, A. E. Aug
Stolba, L. B. Aug
Strickland, B. R. Aug
Strott, R. R. Aug
Stuart, A. G. Aug
Sugg, J. R. Aug
Thacker, J. J. Aug
Thomas, C. L. Aug
Thompson, R. L. Aug
Tickle, J. R. Aug
Timmons, R. A. Aug
Tobin, P. D. Aug
Tolls, G. C. Aug
Toner, J. G. Aug
Towler, H. H. Aug
Townsend, C. H. Aug
Tracy, G. E. Aug
Trickey, H. L. Aug
Trundle, D. R. Aug
Tucker, J. T. Aug
Tucker, P. D. Aug
Vann, J. E. Aug
Vansickle, A. R. Aug
Venditto, C. R. Aug
Victor, N. T. Aug
Walker, R. V. Aug
Wallace, H. M. Aug
Wanger, B. G. Aug
Ward, M. F. Aug
Warn, L. R. Aug
Weaver, B. F. Aug
Weaver, G. C. Aug
Weber, W. L. Aug
White, W. A. Aug
White, J. R. Aug
White, C. A. Aug
White, R. C. Aug
Wicknick, F. M. Aug
Williams, R. A. Aug
Wilson, M. B. Aug
Wilson, W. A. Aug
Wilson, R. L. Aug
Wingenter, R. E. Aug
Workman, D. Aug
Wyatt, R. O. Aug
Yarboro, J. A. Aug
York, E. R. Aug
Young, C. J. Aug
Zanes, C. A. Aug
Zipay, T. J. Aug

Transfers

Adams, J. B. 2710
Fr Ft Bliss Tex
To FortTrps FMFPac
WDSep
Annas, T. T. 1302
Fr LFTULant
To MCS Quant
WDAug
Austin, H. M. 7332
Fr NAS Pncla
To 2dMAW
WDAug
Ayers, T. J. 7333
Fr 3dMarDiv
To 2dMAW
WDSep
Bailey, R. A. 7304
Fr 1stMAW
To 2dMAW
WDSep
Battistone, C. L. 7333
Fr Somerset England
To 3dMAW
WDSep
Birou, F. L. 2705
Fr 1stMAW
To MCB 29 Palms
WDSep
Blaton, H. L. 0302
Fr 2dMarDiv
To I-I Billings Mont
WDSep
Brining, H. A. 2502
Fr MCS Quant
To 1stMarDiv
WDSep
Burch, H. F. 5502
Fr MCB 29 Palms
To 3dMAW
WDAug
Butterfield, C. U. 3060
Fr 2dMAW
To 3dMAW
WDSep
Canzano, P. J. 3402
Fr MCS Quant
To 3dMarDiv
WDSep
Colburn, G. W. 3402
Fr USS Princeton
To HQMC
WDSep

Marleby, D. C.
Fr 2dMAW
To 3dMarDiv
WD Sep

Marlow, J. B.
Fr MCS Quant
To 2dMarDiv
WD Sep

Marsden, R. W.
Fr 3dMarDiv
To MCRD SDiego
WD Sep

Mayberry, W. B.
Fr 2dMarDiv
To MCS Quant
WDAug

Mc Williams, J. P.
Fr 3dMarDiv
To MCB CamLej
WD Sep

Millhouse, T. J.
Fr 2dMAW
To ForTrps FMFLant
WD Sep

Morgan, J. E.
Fr 2dMarDiv
To 3dMAW
WD Sep

Morris, C. M.
Fr 2dMarDiv
To IntelScol WashDC
WD Sep

Nelson, D. N.
Fr 1stMAW
To 3dMAW
WD Sep

Oates, R. H.
Fr 3dMarDiv
To MCRD PISC
WD Sep

O'Brien, D. W.
Fr MCS Quant
To MCB 29 Palms
WDAug

Pierce, J. S.
Fr MCS Quant
To ForTrps FMFLant
WD Sep

Pozza, J. B.
Fr 2dMarDiv
To MCS Quant
WDAug

Pressley, W. B.
Fr 1stMAW
To 2dMAW
WD Sep

Provost, P. A.
Fr 3dMarDiv
To NAS Pncla
WD Sep

Radcliffe, E. T.
Fr MCS Quant
To MCRD SDiego
WD Sep

Read, H. D.
Fr 1stMarDiv
To Ft Holabird Md
WD Sep

Reischuck, G. A.
Fr MCS Quant
To 3dMarDiv
WDAug

Rhinesmith, G. B.
Fr 1stMarDiv
To NAS Pncla
WD Sep

Rivella, H. J.
Fr 3dMarDiv
To MCRD SDiego
WD Sep

Rivens, J. D.
Fr 1stMAW
To 3dMAW
WD Sep

Robillard, G. N.
Fr 2dMarDiv
To Port Lyautey
WD Sep

Rosene, V. C.
Fr 3dMarDiv
To MCRD SDiego
WD Sep

Rountree, L. C.
Fr MCS Quant
To MCRD PISC
WD Sep

Schafer, R. S.
Fr 1stMAW
To 2dMAW
WD Sep

Seay, D. R.
Fr 3dMarDiv
To MCB CamLej
WD Sep

Shafer, R. L.
Fr ForTrps FMFLant
To Ft Holabird Md
WD Sep

Sharp, J. F.
Fr MCS Quant
To 1stMAW
WDAug

Silver, T. J.
Fr MCS Quant
To 3dMAW
WD Sep

Smith, R. E.
Fr MCS Quant
To 1stMarDiv
WD Sep

Steele, J. W.
Fr 1stMAW
To 3dMAW
WD Sep

Stehr, F. W.
Fr MCS Quant
To MCRD SDiego
WD Sep

Storen, M.
Fr 3dMarDiv
To MCB CamLej
WD Sep

Summerlin, B. M.
Fr 2dMarDiv
To Rota Spain
WD Sep

Thompson, J. M.
Fr 1stMAW
To 2dMarDiv
WD Sep

Tiffert, M. V.
Fr MAG32
To MCSC Albany
WD Sep

Tilton, R. C.
Fr MCS Quant
To MCAS CherPt
WD Sep

Toth, J. E.
Fr 2dMarDiv
To IntelScol WashDC
WDAug

1302 Townsend, J. B.
WD Sep Fr ForTrps FMFLant
To HQMC

9901 Tutterrow, J. H.
WD Sep Fr 2dMarDiv
To 3dMarDiv

0302 Ulises, R. J.
WD Sep Fr MCS Quant
To 1stMarDiv

0802 Wallace, A. E.
WDAug Fr MCS Quant
To 2dMarDiv

0302 Van Tassel, G. L.
1 Sep Fr MCS Quant
To MCAAS Yuma

7335 Vowell, D. E.
WD Sep Fr 1stMarDiv
To Ft Sill Okla

7302 Walker, P. M.
WD Sep Fr 1stMAW
To 2dMAW

0302 Walters, W. S.
WDAug Fr 3dMarDiv
To Ft Sill Okla

6709 West, R. H.
WD Sep Fr 1stMAW
To 1stMarDiv

0302 Wheeler, J. J.
WD Sep Fr 3dMarDiv
To 2dMarDiv

2502 Wood, V. E.
WD Sep Fr 3dMarDiv
To 3dMAW

Extended Active Duty

Doyle, C. M.
Jun61

Leister, J. S.
Jun62

Linderman, S. W.
Sep62

Love, T. D.
Jun63

Pope, W. E.
Dec61

Prosch, T. J.
Feb64

Reischuck, G. A.
Jan62

Sharr, J. F.
Jan62

Waterfield, R. G.
Jun63

Waters, K. D.
Jun62

Released from Active Duty

Anderson, F. R.
2502 WD Sep 1stMarDiv

Anderson, R. E.
4406 WD Sep 3dMAW

Barnes, W. D.
7399 WD Sep NAS Pncla

Barnhart, J. M.
6709 WD Sep 3dMAW

Bellech, R. E.
6406 WD Sep MCAS Beaufort

Bennett, E. B.
0302 WD Sep MCS Quant

Berardino, R. M.
6708 WD Sep 2dMAW

Bishop, D. R.
7335 WD Sep 3dMAW

Broetzman, M. M.
0115 WD Sep MCSC Albany

Bruhn, J. A.
3010 WD Sep MCRD SDiego

Busick, D. M.
7335 WD Sep 2dMAW

Byrne, B. A.
0130 WD Sep MCS Quant

Carter, H. A.
0302 WD Sep 2dMarDiv

Cauthen, D. B.
6708 WD Sep 3dMAW

Conates, J. J.
3402 WD Sep 2dMAW

Coleman, D. P.
2502 WD Sep 1stMarDiv

Coughlin, D. O.
0302 WD Sep MCRD PISC

Courtney, R. J.
7335 WD Sep 3dMAW

Douglass, J. A.
0302 WD Sep 1stMarDiv

Doyle, C. M.
7331 WD Sep NAS Pncla

Duckett, W. I.
0130 WD Sep MCAS El Toro

Durfee, S. B.
6708 WD Sep 2dMAW

Economides, J. K.
7335 WD Sep 3dMAW

Eggleston, T. L.
7335 WD Sep NAS Pncla

Fee, G. E.
0802 WD Sep 2dMarDiv

Ferguson, W. F.
6720 WD Sep 2dMAW

Ferree, G. R.
7333 WD Sep 3dMAW

Fox, R. M.
0702 WD Sep ForTrps FMFPac

Franklin, J. B.
6406 WD Sep 3dMAW

Fraser, D. R.
7302 WD Sep 3dMAW

Fullerton, B. A.
0302 WD Sep MCB CamLej

Grant, D. M.
0802 WD Sep MCB CamPen

7302 Guy, K. J.
WD Sep 3dMAW

7335 Heatherman, M. F.
WD Sep 3dMAW

7333 Holloway, R. T.
WD Sep 3dMAW

0802 Hottenroth, F. W.
WD Sep 2dMarDiv

0115 Hauser, P. S.
WD Sep MCRD SDiego

2502 Hynes, J. P.
WD Sep FMFLant

0802 Ingham, E. R.
WD Sep MCB CamPen

0802 Kermod, W. C.
WD Sep 1stMarDiv

0802 Kirk, J. R.
WD Sep ForTrps FMFLant

0130 Landrum, G. H.
WD Sep MCS Quant

6708 Lane, C. T.
WD Sep 3dMAW

7335 Lepse, R. H.
WDAug 3dMAW

1302 Loffelmacher, L. S.
WD Sep ForTrps FMFLant

0302 Lorenz, M. J.
WD Sep MCRD SDiego

3095 Manley, L. J.
WD Sep ForTrps FMFLant

0130 Martin, C. F.
WD Sep 8thMCRD

0802 McLaughlin, R. L.
WD Sep 2dMarDiv

3095 McPeak, C. J.
WD Sep MCB CamLej

0130 Mittrick, C. L.
WD Sep MCB CamPen

3010 Muir, D. W.
WD Sep MCRD SDiego

0302 Nichols, H. O.
WD Sep 2dMarDiv

7304 Orlich, H. G.
WD Sep 2dMAW

0302 Pavlovskis, V. V.
WD Sep MCB CamPen

7304 Potter, D. G.
WD Sep 3dMAW

3010 Ramsey, W. A.
WD Sep MCSC Albany

7333 Reece, J. K.
WD Sep 3dMAW

1302 Rhodes, R. B.
WD Sep ForTrps FMFLant

0302 Riddle, C. M.
WD Sep 2dMarDiv

0302 Riley, J. B.
WD Sep ForTrps FMFLant

2502 Ritch, J. H.
WD Sep MCB CamLej

7335 Roark, R. L.
WD Sep 3dMAW

6802 Robb, J. H.
WD Sep 3dMAW

3030 Rooney, H. J.
WD Sep MCSC Albany

6708 Roth, R. F.
WD Sep 2dMAW

7304 Rowland, F. J.
WD Sep 2dMAW

3095 Rushing, C. N.
WD Sep MCSC Albany

0130 Ryan, D. V.
WD Sep MCAS El Toro

3010 Shuck, C. S.
WD Sep ForTrps FMFLant

0302 Smith, J. A.
WD Sep MCB CamLej

0802 Smith, J. D.
WD Sep 1stMarDiv

7335 Souders, F. E.
WD Sep 3dMAW

7333 Sparks, K. R.
WD Sep 3dMAW

2502 Spooner, B. M.
WD Sep 1stMarDiv

3502 Stanton, T. B.
WD Sep 1stMarDiv

7333 Stephens, A. C.
WDAug 3dMAW

0130 Stewart, C. L.
WD Sep MCB CamLej

7331 Street, R. W.
WD Sep NAS Pncla

0302 Thomasson, G. B.
WD Sep MCRD SDiego

0130 Tiller, P. L.
WD Sep MCS Quant

0115 Traylor, S. N.
WD Sep MCS Quant

0130 Vertalino, C. A.
WD Sep MCB CamPen

7302 Wadsworth, M. G.
WD Sep 3dMAW

1302 Wares, D. A.
WD Sep MCAS El Toro

0302 Welsh, G. H.
WD Sep 1stMarDiv

0802 Williams, T. W.
WD Sep ForTrps FMFLant

1302 Woods, R. D.
WD Sep MCB CamPen

7302 Zavoyski, E. M.
WD Sep MCB CamLej

0130 Zweilacher, E. A.
WD Sep MCB CamPen

Deaths

9901 Gutowski, R. A.
2Aug 1stMarDiv

7333 Johnson, J. C.
21Jul 2dMAW

7305 Young, T. D.
25Jul NAS Glenview Ill

2d Lieutenants

Transfers

9901 Abele, W. R.
WDAug Fr MCS Quant
To 2dMarDiv

9901 Akins, R. E.
WD Sep Fr MCS Quant
To 2dMarDiv

9901 Ammon, R. D.
WD Sep Fr MCS Quant
To 3dMarDiv

7399 Andrews, D. W.
WDAug Fr MCS Quant
To NAS Pncla

9901 Armstrong, D. F.
WDAug Fr MCS Quant
To 1stMarDiv

9901 Ayers, R. A.
WDAug Fr MCS Quant
To 1stMarDiv

9901 Bailey, R. W.
WD Sep Fr MCS Quant
To ForTrps FMFLant

9901 Baradat, A. J.
WD Sep Fr MCS Quant
To 3dMarDiv

9901 Baxter, J. F.
WD Sep Fr MCS Quant
To 1stMarDiv

9901 Bearce, L. V.
WD Sep Fr MCS Quant
To 3dMarDiv

9901 Beavers, N. L.
WD Sep Fr MCS Quant
To 6thMCRD

9901 Bradfield, L. P.
By1Sep Fr MCS Quant
To 1stMarDiv

9901 Brown, M. T.
WDAug Fr MCS Quant
To 2dMarDiv

9901 Bub, R. L.
WDAug Fr MCS Quant
To 2dMarDiv

9901 Buck, J. A.
WD Sep Fr MCS Quant
To 1stMarDiv

9901 Caldwell, J. V.
WDAug Fr MCS Quant
To 1stMarDiv

9901 Carbone, D. D.
WDAug Fr MCS Quant
To 1stMarDiv

9901 Carlson, P. L.
WDAug Fr MCS Quant
To 1stMarDiv

9901 Cesare, F. V.
WDAug Fr MCS Quant
To 2dMarDiv

9901 Cheney, Q. W.
WD Sep Fr MCS Quant
To 2dMarDiv

9901 Christman, M.
WD Sep Fr MCS Quant
To 1stMarDiv

9901 Clark, R. M.
WDAug Fr MCS Quant
To 1stMarDiv

9901 Cobble, R. W.
WDAug Fr MCS Quant
To 1stMarDiv

9901 Cole, B. F.
WDAug Fr MCS Quant
To 2dMarDiv

9901 Collins, F. A.
WDAug Fr MCS Quant
To 2dMarDiv

9901 Connelly, E. J.
WDAug Fr MCS Quant
To 2dMarDiv

9901 Connors, T. N.
WDAug Fr MCS Quant
To ForTrps FMFPac

9901 Cooper, G. J.
WDAug Fr MCS Quant
To 1stMarDiv

9901 Coyne, E. F.
WDAug Fr MCS Quant
To 2dMarDiv

9901 Curry, J. E.
WD Sep Fr MCS Quant
To MCB CamLej

9901 Davies, L. E.
By1Sep Fr MCS Quant
To 1stMarDiv

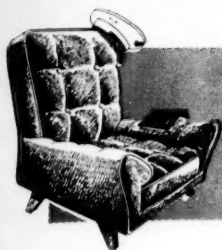
9901 Desmond, R. J.
WDAug Fr MCS Quant
To 2dMarDiv

Doherty, D. G. Fr NAAS Kingsville To 1stMarBrig	7398 WDSEP	Keeley, A. W. Fr MCS Quant To 1stMarBrig	9901 WDSEP	Redgate, J. H. Fr MCS Quant To 2dMarDiv	9901 WDSEP	commissioned service will at- tend screening course at MCS, Quantico, later a 10-week WO Basic Course.
Driscoll, N. R. Fr NAAS Kingsville To 1stMarBrig	7398 WDSEP	Kelly, R. H. Fr MCS Quant To ForTrps FMFPac	9901 WDAUG	Reed, A. R. Fr MCS Quant To 1stMarDiv	9901 WDSEP	
Driver, R. J. Fr MCS Quant To 1stMarBrig	9901 WDAUG	Keys, G. E. Fr NAAS Kingsville To 1stMarBrig	7398 WDSEP	Reed, B. L. Fr NAAS Kingsville To 2dMAW	7398 WDSEP	
Droze, H. D. Fr MCS Quant To 3dMarDiv	9901 WDAUG	Kilpatrick, C. D. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Ridgeway, W. T. Fr MCS Quant To 1stMarBrig	9901 WDAUG	Transfers
Erickson, G. K. Fr MCS Quant To ForTrps FMFPac	9901 WDAUG	King, F. F. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Rivers, E. G. Fr MCS Quant To 1stMarDiv	9901 By1Sep	Cain, J. T. Fr 1stMAW To 1stMarBrig
Ewald, R. P. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Kravitz, D. G. Fr MCS Quant To 1stMarDiv	9901 By1Sep	Roe, R. R. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Chance, J. M. Fr HQMC To B Frank Univ
Fabend, E. C. Fr MCS Quant To 1stMarDiv	9901 By1Sep	Lamb, D. L. Fr 15th NavDist To MCAF NRiver	4130 WDAUG	Russell, J. A. Fr MCS Quant To ForTrps FMFPac	9901 WDSEP	Clark, T. Fr 3dMAW To 1stMarBrig
Fillman, W. E. Fr MCS Quant To 2dMAW	3502 WDSEP	Larkin, T. G. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Severs, D. F. Fr MCS Quant To NAS Pncla	7399 WDAUG	Glick, C. O. Fr C. Elliott SDiego To MCAS Kaneohe
Filoon, J. W. Fr MCS Quant To 2dMarDiv	9901 WDSEP	Leahey, E. G. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Sewell, W. C. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Kutilek, A. J. Fr 3dMarDiv To MCB CamPen
Fitzpatrick, R. L. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Lohr, R. E. Fr MCS Quant To 1stMarDiv	9901 WDSEP	Sherman, W. J. Fr MCS Quant To ForTrps FMFPac	9901 WDSEP	Morehead, R. A. Fr 3dMarDiv To MCB CamLej
Flynn, H. J. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Lynn, V. B. Fr MCS Quant To 1stMarBrig	9901 WDSEP	Simpson, C. F. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Meadows, E. L. Fr USS Princeton To 1stMarDiv
Frantz, C. C. Fr MCS Quant To 1stMarBrig	9901 WDSEP	Lyons, T. E. Fr MCS Quant To 2dMAW	9901 WDSEP	Skerritt, R. E. Fr MCS Quant To 1stMarDiv	0802 WDSEP	Parker, N. E. Fr MCB CamPen To HQMC
Gallery, V. R. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Manasas, J. A. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Smith, D. H. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Clinch, R. S. Fr MCS Quant To 3dMarDiv
Garbacz, G. G. Fr MCS Quant To 3dMarDiv	9901 WDSEP	Mansfield, J. M. Fr MCS Quant To 1stMarDiv	9901 WDSEP	Smith, J. D. Fr NAAS Kingsville To 1stMarBrig	7398 WDSEP	Cline, M. G. Fr HQMC To B Frank Univ
Gibson, C. W. Fr MCS Quant To 2dMarDiv	9901 WDSEP	Marsh, J. G. Fr MCS Quant To ForTrps FMFLant	9901 WDAUG	Sole, J. A. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Cox, G. H. Fr MCAS El Toro To 1stMAW
Glalze, S. S. Fr MCS Quant To 2dMarDiv	9901 WDAUG	Martin, D. J. Fr MCS Quant To 3dMarDiv	9901 WDSEP	St John, G. J. Fr MCS Quant To 1stMarDiv	9901 By1Sep	Crowford, R. H. Fr 3dMAW To 2dMAW
Glaser, B. J. Fr MCS Quant To 1stMarDiv	9901 By1Sep	Mc Gowan, R. W. Fr MCS Quant To 3dMarDiv	9901 WDSEP	Stoner, D. L. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Demeo, A. C. Fr MCS Quant To MCAF NRiver
Godwin, J. E. Fr MCRD SDiego To 1stMarDiv	9901 WDAUG	McAdams, K. G. Fr NAAS Kingsville To 1stMarBrig	7398 WDSEP	Sullivan, J. V. Fr MCS Quant To 1stMarBrig	9901 WDSEP	Duncan, D. A. Fr MCB CamLej To 3dMAW
Goodman, J. C. Fr MCS Quant To 2dMarDiv	9901 WDAUG	McConomy, G. J. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Thompson, T. L. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Farkas, J. Fr NTC GLakes To MCB CamLej
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Haro, J. D. Fr MCS Quant To 3dMarDiv	9901 WDSEP	Miller, A. R. Fr MCS Quant To 2dMarDiv	9901 WDAUG	Wilson, T. D. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Merry, B. E. Fr MCS Quant To 2dMAW
Hawkins, H. H. Fr MCS Quant To 2dMarDiv	9901 WDSEP	Miller, L. P. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Wright, W. E. Fr MCS Quant To 2dMarDiv	9901 WDAUG	Oakley, H. C. Fr MCB CamLej To 3dMAW
Hickman, D. C. Fr MCS Quant To 2dMarDiv	9901 WDAUG	Minick, J. J. Fr MCS Quant To ForTrps FMFPac	9901 WDSEP			Perry, G. A. Fr 3dMAW To MCRD SDiego
Hicks, L. R. Fr MCS Quant To 2dMarDiv	9901 WDAUG	Mulholland, R. F. Fr MCS Quant To MCAS CherPt	6405 WDAUG			Ross, R. L. Fr MCS Quant To 1stMAW
Holbrook, J. Fr MCS Quant To 1stMarDiv	9901 By1Sep	Murphy, J. F. Fr NAAS Kingsville To 1stMarBrig	7398 WDSEP			Waldenville, A. W. Fr MCS Quant To 3dMAW
Jadlos, J. P. Fr MCS Quant To 1stMarDiv	9901 WDSEP	Pagnani, A. C. Fr MCS Quant To 2dMarDiv	9901 WDAUG			Watson, J. O. Fr NTC GLakes To FMFLant
James, L. W. Fr MCS Quant To 2dMarDiv	9901 WDAUG	Papas, J. F. Fr NAAS Kingsville To 2dMAW	7398 WDSEP			
Jesdale, W. T. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Peterson, R. L. Fr MCS Quant To NAS Pncla	7399 WDAUG			Retired
Jessen, T. F. Fr MCS Quant To 1stMarDiv	9901 WDAUG	Pond, R. C. Fr MCS Quant To 1stMarDiv	9901 WDAUG			Arnold, T. C. 3dMAW
Johnson, W. H. Fr MCS Quant To 2dMarDiv	9901 WDAUG	Pope, J. H. Fr MCS Quant To 1stMarDiv	9901 By1Sep			Elliot, J. F. MCB CamPen
Kaplanka, J. J. Fr MCS Quant To 2dMarDiv	9901 WDAUG	Powell, D. L. Fr MCS Quant To 1stMarDiv	9901 WDAUG			Garrison, V. T. ForTrps FMFLant
Kappleman, C. W. Fr MCS Quant To 3dMarDiv	9901 WDSEP	Quinn, J. L. Fr MCS Quant To 1stMarDiv	9901 WDAUG			Graham, J. I. MCAS El Toro

Warrant Officers

About 200 new WOs will be appointed in January from applicants nominated for first phase of FY '61 program ending 19 Sept. Bulk of appointments will be made from enlisted Marines with 6-8 years service, cover 40 MOSs (See MCA Newsletter: June '60), plus a new one, MOS 4140 (Club and Mess Management). Selection board meets 18 Oct; those picked who have no prior

Arnold, T. C. 3dMAW	3402
Elliot, J. F. MCB CamPen	3140
Garrison, V. T. ForTrps FMFLant	3140
Graham, J. I. MCAS El Toro	3140
Bates, C. F. MCS Quant	3140
Robbins, R. B. ForTrps FMFLant	3140
Welsh, W. F. MCRD SDiego	3140
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